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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

Optical infrastructures – Infrastructure including node
elements (except cables)

Passive node elements with automated ID tag detection

Recommendation ITU-T L.207

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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

OPTICAL FIBRE CABLES	
Cable structure and characteristics	L.100–L.124
Cable evaluation	L.125–L.149
Guidance and installation technique	L.150–L.199
OPTICAL INFRASTRUCTURES	
Infrastructure including node elements (except cables)	L.200–L.249
General aspects and network design	L.250–L.299
MAINTENANCE AND OPERATION	
Optical fibre cable maintenance	L.300–L.329
Infrastructure maintenance	L.330–L.349
Operation support and infrastructure management	L.350–L.379
Disaster management	L.380–L.399
PASSIVE OPTICAL DEVICES	L.400–L.429
MARINIZED TERRESTRIAL CABLES	L.430–L.449

For further details, please refer to the list of ITU-T Recommendations.

Recommendation ITU-T L.207

Passive node elements with automated ID tag detection

Summary

With the fast growth of fibre to the x (FTTx), rapid deployment and effective maintenance of a new passive fibre cable network [i.e., optical distribution network (ODN)] have become major challenges for telecommunications network operators. The global communications industry has been developing passive node elements with automated identifier (ID) tag detection to enable automated information collection on optical fibre connectivity for more efficient installation, operation and maintenance of optical fibre networks.

Recommendation ITU-T L.207 focuses on hardware aspects of this type of passive node element and to describe the general features, characterization and performance specifications for node elements with automated ID tag detection, including environmental conditions, functional requirements, performance requirements, and mechanical and electrical or optical interface requirements.

A product characterization checklist is included in an appendix.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T L.207	2018-03-16	15	11.1002/1000/13567

Keywords

automated ID tag detection, optical fibre connectivity, passive fibre cable 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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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

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

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure, e.g., interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

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Table of Contents

		Page
1	Scope.....	1
2	References.....	1
3	Definitions	1
	3.1 Terms defined elsewhere	1
	3.2 Terms defined in this Recommendation.....	1
4	Abbreviations and acronyms	2
5	Conventions	2
6	Background.....	2
7	Deployment (environment) conditions	3
	7.1 Installed product	3
	7.2 Transport and storage	3
	7.3 Installation or intervention	3
8	Functional requirements	3
	8.1 Base functionalities	3
	8.2 Functionalities concerning automated ID tag detection	3
9	Automated ID tag detection performance requirements.....	4
	9.1 Resource information acquisition time.....	4
	9.2 Port state change response time.....	4
	9.3 Alarm information reporting time	5
	9.4 Port reading success rate	5
	9.5 Power dissipation.....	5
10	Mechanical and electrical or optical interface requirements	5
	Appendix I – Performance evaluation criteria	7
	I.1 Mechanical performance evaluation.....	7
	I.2 Optical evaluation.....	7
	Appendix II – Performance test programme	9
	II.1 Introduction	9
	II.2 Mechanical and optical evaluation	9
	II.3 Electrical evaluation	10
	Appendix III – Product characterization checklist.....	11
	Bibliography.....	14

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Recommendation ITU-T L.207

Passive node elements with automated ID tag detection

1 Scope

This Recommendation addresses the general features, characterization and performance requirements for passive node elements with identifier (ID) tag detection that supports automatic information collection on fibre connectivity. This Recommendation focuses on both indoor and outside plant deployment conditions and includes:

- functional requirements;
- automated ID tag detection performance requirements;
- mechanical and electrical or optical interface requirements.

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 L.200] Recommendation ITU-T L.200/L.51 (2003), *Passive node elements for fibre optic networks – General principles and definitions for characterization and performance evaluation*.

[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.361] Recommendation ITU-T L.361/L.64 (2012), *ID tag requirements for infrastructure and network elements management*.

3 Definitions

3.1 Terms defined elsewhere

This Recommendation uses the terms defined in [ITU-T L.202], [ITU-T L.200], and [ITU-T L.361].

3.2 Terms defined in this Recommendation

This Recommendation defines the following terms:

3.2.1 electrical interface: The interface used to exchange information with the management system in real time online transactions through a data network. The interface should be based on a standard network interface, such as the Ethernet.

3.2.2 management system: Network system with an architecture that encompasses functional modules for data collection, node management, fibre network and work order management. The operation support systems/business support systems (OSSs/BSSs) and other applications related to fibre infrastructure management provide various applications through a management system to a user who wants to use fibre infrastructure more efficiently.