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IEC TR 62316

Edition 3.0 2017-07

TECHNICAL REPORT



**Guidance for the interpretation of OTDR backscattering traces
for single-mode fibres**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 33.180.10

ISBN 978-2-8322-4553-8

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

GUIDANCE FOR THE INTERPRETATION OF OTDR BACKSCATTERING TRACES FOR SINGLE-MODE FIBRES

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IEC TR 62316, which is a Technical Report, has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics.

This third edition cancels and replaces the second edition published in 2007. It constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) the scope has been extended to include single-mode fibres;
- a) backscattered power effects are discussed in case of unidirectional trace, including so-called losers and gainers.
- b) example of apparent splice loss evaluation for unidirectional OTDR measurements has been added:

- c) description of launch and tail cords have been added;
- d) figures have been improved.

The text of this Technical Report is based on the following documents:

Enquiry draft	Report on voting
86A/1754/DTR	86A/1768A/RVC

Full information on the voting for the approval of this technical report can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

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GUIDANCE FOR THE INTERPRETATION OF OTDR BACKSCATTERING TRACES FOR SINGLE-MODE FIBRES

1 Scope

IEC 62316, which is a Technical Report, aims to provide guidelines for the interpretation of backscattering traces, as obtained by traditional optical time domain reflectometers (OTDRs) – not including polarization OTDRs – for single-mode fibres. Also, backscattered power effects are discussed in case of unidirectional trace.

Full description of the test measurement procedure can be found in Annex C of IEC 60793-1-40:2001.

2 Normative references

There are no normative references in this document.