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TECHNICAL REPORT

colour inside

Information technology – Generic cabling for customer premises – Part 9909: Evaluation of balanced cabling in support of 25 Gbit/s for reach greater than 30 metres



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CONTENTS

FOREWORD 4
INTRODUCTION 6
1 Scope 7
2 Normative references 7
3 Terms and definitions 7
3.1 Terms and definitions 7
3.2 Abbreviated terms 7
4 Extended reach channel specifications 8
4.1 General 8
4.2 Channel performance enhancement methods for increased SNR 8
4.2.1 General 8
4.2.2 Reduced delay and delay skew 9
4.2.3 Enhanced cable 9
4.2.4 Enhanced connector 9
4.3 Example channel specifications with length scaling 9
4.3.1 General 9
4.3.2 Return loss (RL) 10
4.3.3 Insertion loss (IL) 10
4.3.4 Near-end crosstalk loss (NEXT) 11
4.3.5 Attenuation to crosstalk loss ratio near-end (ACR-N) 11
4.3.6 Attenuation to crosstalk ratio far-end (ACR-F) 12
4.3.7 Alien (exogenous) crosstalk 12
4.3.8 DC loop resistance 13
4.3.9 Propagation delay 13
4.3.10 Delay skew 13
4.3.11 Unbalance attenuation near end (TCL) and far end (ELTCTL), and coupling attenuation 14
Annex A (informative) Reduced delay and delay skew 15
A.1 Reduced delay relation to extended reach 15
A.1.1 General 15
A.1.2 Example reduced delay evaluation 15
A.2 Delay relation to insertion loss (IL) 15
A.2.1 General 15
A.2.2 Relation of variable relative permittivity to attenuation 16
A.2.3 Relation of dissipation factor to attenuation: 16
Annex B (informative) Enhanced capacity 18
B.1 Enhanced cabling components 18
B.1.1 General 18
B.1.2 Enhanced cable 18
B.1.3 Enhanced connector 18
B.2 Channel SNR margin-to-capacity 18
B.2.1 General 18
B.2.2 Margin-to-capacity calculation and comparison 18
B.2.3 Margin-to-capacity versus frequency 19
B.2.4 Margin-to-capacity versus reach 20
Bibliography 21

Figure B.1 – Margin-to-capacity versus frequency for 25 Gbit/s rate for 50 m reach 19
Figure B.2 – Margin-to-capacity versus reach for 25 Gbit/s at 1 000 MHz frequency 20

Table 1 – Enhancement methods for 25 Gbit/s extended reach 9
Table 2 – Formulae for return loss specifications for example 50 m channel 10
Table 3 – Formulae for insertion loss specifications for example 50 m channel 10
Table 4 – Formulae for pair-to-pair NEXT specifications for example 50 m channel 11
Table 5 – Formula for PS NEXT specifications for example 50 m channel 11
Table 6 – Formulae for ACR-F specifications for example 50 m channel 12
Table 7 – Formulae for PS ACR-F specifications for example 50 m channel 12
Table 8 – Formulae for PS ANEXT specifications for example 50 m channel 13
Table 9 – Formulae for PS AACR-F specifications for example 50 m channel 13
Table 10 – Formulae for propagation delay specifications for a 50 m channel 13
Table 11 – Delay skew specifications for a 50 m channel 13
Table 12 – TCL for example 50 m channel 14
Table 13 – ELTCTL for example 50 m channel 14
Table 14 – Coupling attenuation for example 50 m channel for E_1 and E_2 14

INFORMATION TECHNOLOGY – GENERIC CABLING FOR CUSTOMER PREMISES –

Part 9909: Evaluation of balanced cabling in support of 25 Gbit/s for reach greater than 30 metres

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ISO/IEC TR 11801-9909, which is a Technical Report, has been prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

The list of all currently available parts of the ISO/IEC 11801 series, under the general title *Information technology – Generic cabling for customer premises*, can be found on the IEC and ISO websites.

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

DTR	Report on voting
JTC1-SC25/2932/DTR	JTC1-SC25/2948/RVDTR

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

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INTRODUCTION

This document provides an evaluation of balanced cabling in support of 25 Gbit/s data transmission. The evaluation covers enhanced balanced cabling channel specifications, which are based on Category 8.1 and Category 8.2 balanced cabling components. The enhanced channel specifications are intended to support extended reach greater than 30 m.

The extended reach evaluation is intended to support various emerging use-cases including

- 25 Gbit/s LAN,
- extended reach high definition audio/video,
- Wi-Fi®[1] application greater than 10 Gbit/s, and
- 5G intrabuilding sites.

[1] Wi-Fi is a registered trademark of Wi-Fi Alliance. This information is given for the convenience of users of this document and does not constitute an endorsement by ISO or IEC.

INFORMATION TECHNOLOGY – GENERIC CABLING FOR CUSTOMER PREMISES –

Part 9909: Evaluation of balanced cabling in support of 25 Gbit/s for reach greater than 30 metres

1 Scope

This part of ISO/IEC 11801, which is a Technical Report, covers evaluation and recommendations for achieving extended reach, greater than 30 m, for 25 Gbit/s applications over balanced cabling channels.

This document covers channel reference implementations, based on Category 8.1 and Category 8.2, 2 000 MHz, components.

The channel and component category specifications covered in this document are not intended to be normative.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 11801-1, *Information technology – Generic cabling for customer premises – Part 1: General requirements*

3 Terms and definitions

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 11801-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at https://www.iso.org/obp

3.2 Abbreviated terms

For the purposes of this document, the abbreviated terms given in ISO/IEC 11801-1 and the following apply.

SNR	signal to noise ratio
NVP	nominal velocity of propagation