

INTERNATIONAL STANDARD

ISO/IEC 17982

First edition
2012-08-01

Information technology — Telecommunications and information exchange between systems — Close Capacitive Coupling Communication Physical Layer (CCCC PHY)

*Technologies de l'information — Téléinformatique — Couche physique
pour communication par couplage capacitif fermé*

Withdrawn

Reference number
ISO/IEC 17982:2012(E)



Withdrawn



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2012

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	v
Introduction.....	vi
1 Scope	1
2 Conformance	1
3 Normative references	1
4 Terms, definitions and acronyms	1
5 Conventions and notations	2
5.1 Representation of numbers	2
5.2 Names	2
6 General	2
7 Reference plate-electrode assembly	4
8 PHY parameters	5
8.1 Voltage conditions	5
8.2 Bit representation	6
8.2.1 Bit duration	6
8.2.2 Bit encoding	6
8.3 Transmission	6
8.4 DC balance of a P-PDU	6
8.5 Reception of a P-PDU	7
9 P-PDU	7
9.1 Structure	7
9.2 Space	7
9.3 Level adjust	7
9.4 Pre-amble and Sync	7
9.5 Attribute	8
9.6 TDS number	8
9.7 Sequence number	9
9.7.1 Initial and range	9
9.7.2 Acknowledgement	9
9.8 Payload	9
9.9 CRC	9
9.10 Post-amble	9
9.11 Null P-PDU	9
9.12 Data P-PDU	9
10 PHY Data Unit (P-DU)	9
11 Segmentation and Reassembly	10
12 TDS	10
13 LBT and synchronisation	11
13.1 LBT	11
13.2 Synchronisation	11
14 Association procedure	11

15	Communication	13
15.1	Full duplex communication	13
15.2	Broadcast communication	15
Annex A	(normative) Tests	17

Withdrawn

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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

ISO/IEC 17982 was prepared by Ecma International (as ECMA-401) and was adopted, under a special “fast-track procedure”, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

Introduction

This International Standard specifies the PHY protocol and for wireless communication between the Close Capacitive Coupling Communication (CCCC) devices.

Withdrawn

Information technology — Telecommunications and information exchange between systems — Close Capacitive Coupling Communication Physical Layer (CCCC PHY)

1 Scope

This International Standard specifies the CCCC PHY for Full duplex and Broadcast communication in time slots on frequency division multiplex channels.

2 Conformance

Conforming entities implement:

- both Talker and Listener,
- listen before talk (LBT) for both Talker and Listener,
- the capability to execute association on FDC2 and to communicate on (FDC0 and FDC1), (FDC3 and FDC4), or (FDC0, FDC1, FDC3 and FDC4),
- the capability for Talkers and Listeners to use any of the 8 TDS on a FDC,
- both Full duplex and Broadcast communication, and pass the tests in Annex A as specified herein.

3 Normative references

The following referenced documents are indispensable for the application 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 7498-1:1994, *Information technology — Open Systems Interconnection — Basic Reference Model: The Basic Model*

ITU-T V.41, *Data communication over the telephone network — Code-independent error-control system*