SLOVENSKI STANDARD
SIST EN 300 175-4 V1.7.1:2003

01-december-2003

Digitalne izboljšane brezvrvične telekomunikacije (DECT) – Skupni vmesnik (CI) – 4. del: Plast krmiljenja podatkovnih povezav (DCL)

Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 4: Data Link Control (DLC) layer

Ta slovenski standard je istoveten z: EN 300 175-4 Version 1.7.1

ICS:

33.070.30	Digitalne izboljšane brezvrvične telekomunikacije (DECT)	Digital Enhanced Cordless Telecommunications (DECT)
35.100.20	Podatkovni povezovalni sloj	Data link layer

SIST EN 300 175-4 V1.7.1:2003 **en**

ETSI EN 300 175-4 V1.7.1 (2003-07)

European Standard (Telecommunications series)

Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 4: Data Link Control (DLC) layer

Reference
REN/DECT-000201-4

Keywords
DECT, radio

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Important notice

Individual copies of the present document can be downloaded from:
http://www.etsi.org

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at
http://portal.etsi.org/tb/status/status.asp

If you find errors in the present document, send your comment to:
editor@etsi.org

Copyright Notification

Contents

Intellectual Property Rights 11
Foreword 11
1 Scope 12
2 References 12
3 Definitions, symbols and abbreviations 13
3.1 Definitions 13
3.2 Symbols and abbreviations 13
4 Data Link Control (DLC) layer overview 15
4.1 General 15
4.2 C-plane services 15
4.3 U-plane services 16
4.4 Lower Layer Management Entity (LLME) 19
5 C-plane service characteristics 19
5.1 Data link service (LAPC+Lc) 19
5.1.1 General 19
5.1.2 LAPC types of operation 20
5.1.3 Establishment of information transfer modes 20
5.1.3.1 Data Link Identifier (DLI) 20
5.1.3.2 LAPC states 20
5.2 Broadcast service (Lb) 21
6 Frame structures for C-plane services 22
6.1 Data link service frame structure 22
6.1.1 General frame structure 22
6.1.2 Lc frame delimiting and transparency 23
6.1.3 Transmission order 23
6.1.4 Routing to logical channels 23
6.1.4.1 C_F/CL_F logical channel 23
6.1.4.2 C_S/CL_S logical channel 24
6.1.5 Invalid frames 24
6.2 Broadcast service frame structure 25
6.2.1 Standard frame structure 25
6.2.2 Extended frame structure 25
7 Elements of procedures and formats of fields for C-plane peer-to-peer communication 26
7.1 General 26
7.2 Address field formats 26
7.3 Address field parameters 26
7.3.1 REServed bit (RES) 26
7.3.2 Command Response (C/R) bit 26
7.3.3 SAPI field 27
7.3.4 New Link Flag (NLF) bit 27
7.3.5 LLN-field 27
7.3.6 Data Link Identifiers (DLI) 27
7.4 Control field formats 28
7.5 Control field parameters 28
7.5.1 Poll/Final (P/F) bit 28
7.5.2 Multiple frame operation variables and sequence numbers 29
7.5.2.1 Modulus 29
7.5.2.2 Send state Variable V(S) 29
7.5.2.3 Acknowledge state Variable V(A) 29
7.5.2.4 Send sequence Number N(S) 29
7.5.2.5 Receive state Variable V(R) 29

7.5.2.6 Receive sequence Number N(R) 29
7.5.3 Unacknowledged operation variables and sequence numbers 29
7.5.4 Supervisory and Unnumbered function bits S and U 30
7.6 Length indicator field format 30
7.7 Length indicator field parameters 30
7.7.1 Length indicator field extension bit; N 30
7.7.2 More data bit; M 30
7.7.3 Length parameter; L_I 31
7.7.4 Extended length parameter; L_{JJ} 31
7.7.5 Reserved bit; RES 31
7.8 Fill field format 31
7.9 Checksum field format 32
7.10 Checksum field parameters 32
7.11 Commands and responses 33
7.11.1 Information (I) command 33
7.11.2 Receive Ready (RR) command/response 34
7.11.3 Receive Not Ready (RNR) command/response 34
7.11.4 REJect (REJ) command/response 34
7.11.5 Set Asynchronous Balanced Mode (SABM) command 34
7.11.6 Disconnect Mode (DM) response 35
7.11.7 Unnumbered Information (UI) command 35
7.11.8 DISConnect (DISC) command 35
7.11.9 Unnumbered ACK (UA) response 35

8 Primitives 35
8.1 Primitive types 35
8.2 Primitives to the MAC layer (lower layer) 36
8.3 Primitives to the NWK layer (higher layer) 36
8.3.1 Parameter definitions 36
8.3.2 S-SAP primitives 37
8.3.2.1 DL_ESTABLISH primitive 37
8.3.2.2 DL_RELEASE primitive 38
8.3.2.3 DL_DATA primitive 38
8.3.2.4 DL_UNIT_DATA primitive 38
8.3.2.5 DL_SUSPEND primitive 38
8.3.2.6 DL_RESUME primitive 39
8.3.2.7 DL_ENC_KEY primitive 39
8.3.2.8 DL_ENCRYPT primitive 39
8.3.2.9 DL_SERVICE_MOD primitive 39
8.3.3 B-SAP primitives 40
8.3.3.1 DL_BROADCAST primitive 40
8.3.3.2 DL_EXPEDITED primitive 40
8.4 Primitives to the interworking unit 40
8.4.1 Parameter definitions 40
8.4.2 LU_X-SAP primitives 41
8.4.2.1 DL_U_DATA primitive 41
8.4.2.2 DL_U_UNIT_DATA primitive 41
8.4.2.3 DL_U_ERROR primitive 41

9 C-plane peer-to-peer procedures 42
9.1 General 42
9.2 Point to point acknowledged operation 42
9.2.1 Procedure for the use of the P/F bit 42
9.2.1.1 Class A acknowledged information transfer 42
9.2.1.2 Class B acknowledged information transfer 43
9.2.2 Use of LLN 43
9.2.2.1 Class A operation 43
9.2.2.2 Class B operation 43
9.2.3 Link establishment and information transfer in class A operation 43
9.2.3.1 Establishing class A operation 43
9.2.3.2 Class A acknowledged information transfer 44
9.2.3.3 Transmission of class A I-frames 44

9.2.3.4 Reception of class A I-frames 45
9.2.3.5 Receiving acknowledgements 45
9.2.3.6 Waiting for acknowledgement 45
9.2.3.7 Release of class A operation 46
9.2.3.8 Re-establishment of class A operation 46
9.2.4 Establishing class B multiple frame operation 46
9.2.4.1 Overview 46
9.2.4.2 Class B multiple frame establishment procedures 47
9.2.4.3 Class B LLN assignment procedures 48
9.2.4.3.1 PT establishment 48
9.2.4.3.2 FT establishment 49
9.2.5 Link maintenance and information transfer in class B multiple frame operation 49
9.2.5.1 Transmitting I-frames 49
9.2.5.2 Receiving I-frames 50
9.2.5.2.1 P bit set to 1 50
9.2.5.2.2 P bit set to 0 50
9.2.5.3 Sending and receiving acknowledgements 50
9.2.5.3.1 Sending acknowledgements 50
9.2.5.3.2 Receiving acknowledgements 50
9.2.5.4 Receiving REJ-frames 51
9.2.5.5 Receiving RNR-frames 52
9.2.5.6 LAPC own receiver busy condition 53
9.2.5.7 Waiting acknowledgement 53
9.2.5.8 Appropriate supervisory frame 54
9.2.6 Release of class B multiple frame operation 54
9.2.7 Link suspension and resumption 55
9.2.7.1 Link suspension 55
9.2.7.1.1 Class B acknowledged suspend 55
9.2.7.1.2 Unacknowledged suspend 56
9.2.7.1.2.1 Class A 56
9.2.7.1.2.2 Class B 56
9.2.7.1.2.3 Class U 57
9.2.7.2 Class B link resumption 57
9.2.7.3 Connection handover 58
9.2.7.3.1 Class A connection handover 59
9.2.7.3.2 Class B connection handover 60
9.2.7.3.3 Expiry of connection handover timer 60
9.2.8 Re-establishment of class B multi-frame operation 60
9.2.8.1 Criteria for re-establishment 60
9.2.8.2 Procedure 61
9.2.9 Exception handling 61
9.2.9.1 General 61
9.2.9.2 Class B exception condition reporting and recovery 62
9.2.9.2.1 N(S) sequence error 62
9.2.9.2.2 N(R) sequence error 62
9.2.9.2.3 Timer recovery condition 62
9.2.9.2.4 Collision of identical transmitted and received commands 62
9.3 Unacknowledged operation 63
9.3.1 Use of LLN for unacknowledged information transfer 63
9.3.2 Class U link establishment 63
9.3.3 Unacknowledged information transfer 63
9.3.3.1 Transmission of unacknowledged information 63
9.3.3.2 Reception of unacknowledged information 63
9.3.4 Unacknowledged release 63
9.4 Broadcast operation 64
9.4.1 Normal operation 64
9.4.1.1 Procedure in the Fixed radio Termination (FT) 64
9.4.1.2 Procedure in the Portable radio Termination (PT) 64
9.4.2 Expedited operation 64
9.4.2.1 Procedure in the Fixed radio Termination (FT) 64
9.4.2.2 Procedure in the Portable radio Termination (PT) 64
9.5 MAC layer interfaces 65

9.5.1 MC-SAP 65
9.5.1.1 C-plane overview 65
9.5.1.2 C-plane service data procedures 65
9.5.1.3 U-plane service data 66
9.5.2 MB-SAP 66
9.5.2.1 C-plane service data procedures 66
9.5.2.2 U-plane service data 66
9.5.3 MA-SAP 67
9.5.3.1 Overview 67
9.5.3.2 Service data procedures 67

10 Management procedures 67
10.1 Lower Layer Management Entity (LLME) 67
10.2 MAC connection management 67
10.2.1 MAC connection set-up 68
10.2.2 MAC connection release 68
10.2.3 MAC connection modification 68
10.2.4 MAC connection identifiers 69
10.2.4.1 Overview 69
10.2.4.2 Advanced MAC Connection Identifiers (AMCI) 69
10.2.4.3 Basic MAC Connection Identifiers (BMCI) 70
10.2.4.4 MAC Connection Endpoint Identifier (MCEI) 70
10.2.5 Selection of logical channel (C_S or C_F) 70
10.3 DLC C-plane (LAPC) management 71
10.3.1 Provision of link signature 71
10.3.2 Routing of connection oriented links 71
10.3.3 Routing of connectionless links 72
10.4 DLC U-plane (LUX) management 72
10.4.1 U-plane establishment 72
10.4.2 U-plane release 72
10.4.3 U-plane suspend and resume 72
10.5 Connection handover management 73
10.6 Ciphering management 73
10.6.1 Ciphering management in cases where the NWK layer executes the ciphering related MM procedure 73
10.6.1.1 Providing a key to the MAC layer 73
10.6.1.2 Starting and stopping the ciphering 73
10.6.1.3 Connection handover 74
10.6.2 Ciphering management in cases where the NWK layer does not execute the ciphering related MM procedure 74

11 U-plane service characteristics 74
11.1 General 74
11.2 LU1 TRansparent UnProtected service (TRUP) 75
11.3 LU2 Frame RELay service (FREL) 75
11.3.1 General 75
11.3.2 Checksum operation 76
11.3.3 Segmentation and transmission class 77
11.3.4 Data transmission 77
11.3.4.1 Send side procedure 77
11.3.4.2 Receive side procedure 77
11.4 LU3 Frame SWItching service (FSWI) 78
11.5 LU4 Forward Error Correction service (FEC) 78
11.6 LU5 Basic Rate Adaption service (BRAT) 79
11.6.1 Overview 79
11.6.2 Protected service operation 80
11.6.2.1 General 80
11.6.2.2 Data buffering and initial rate adaptation 80
11.6.2.3 Multi-channel set multiplexing 81
11.6.2.4 Segmentation of Multiplexed Data Units (MDU) 82
11.6.2.5 Frame sequencing and addition of control and fill octets 83
11.6.2.6 Frame transmission 84
11.6.3 Unprotected service operation 85

11.6.3.1 General 85
11.6.3.2 Data buffering and initial rate adaption 85
11.6.3.3 Multi-channel set multiplexing 85
11.6.3.4 Segmentation of MDUs 86
11.6.3.5 Frame transmission 87
11.7 LU6 Secondary Rate AdapTion (SRAT) service 87
11.7.1 General 87
11.8 LU16 ESCape Service (ESC) 88
11.8.1 General 88
11.9 LU7 64 kbit/s data bearer service 89
11.9.1 General 89
11.9.2 Physical layer service 89
11.9.3 MAC layer service 89
11.9.4 DLC layer service 89
11.9.4.1 Architectural model 89
11.9.4.1.1 Transmit (Tx) frame buffering 90
11.9.4.1.2 Receive (Rx) frame buffering 90
11.9.4.2 Automatic-Repeat-Request (ARQ) and Forward Error Control (FEC) 90
11.9.4.2.1 Control field 91
11.9.4.2.1.1 Format control parameter coding 92
11.9.4.2.1.2 Offset variable V(O) 92
11.9.4.2.1.3 Time variables $V_n(T)$ 92
11.9.4.2.1.4 Offset number N(O) 92
11.9.4.2.1.5 Send state variable V(S) 93
11.9.4.2.1.6 Acknowledge state variable V(A) 93
11.9.4.2.1.7 Send sequence number N(S) 93
11.9.4.2.1.8 Receive state variable V(R) 93
11.9.4.2.1.9 Receive sequence number N(R) 93
11.9.4.2.2 Information field 93
11.9.4.2.3 ARQ checksum 94
11.9.4.3 Procedures for normal operation 94
11.9.4.3.1 Establishment and synchronization procedures 94
11.9.4.3.2 Active phase 96
11.9.4.3.2.1 Transmitting frames (first time transmission) 96
11.9.4.3.2.2 Re-transmitting frames 97
11.9.4.3.2.3 Receiving frames 97
11.9.4.3.2.4 Sending acknowledgements 98
11.9.4.3.2.5 Receiving acknowledgements 98
11.9.4.3.3 Release 98
11.9.4.4 Exceptional procedures 98
11.9.4.4.1 Invalid frame condition 98
11.9.4.4.2 Establishment 98
11.9.4.4.3 Transmitting frames 98
11.9.4.4.4 Receiving frames 98
11.9.4.4.5 Sending acknowledgements 99
11.9.4.4.6 Forwarding of received data 99
11.9.4.4.7 N(R) sequence error 99
11.9.4.4.8 N(O) sequence error 99
11.9.4.4.9 N(S) sequence error 99
11.9.4.4.10 Format error 100
11.9.4.4.11 Abnormal release 100
11.9.4.4.12 Implicit reset 100
11.9.5 Network layer service 100
11.9.5.1 LCE service 100
11.9.5.2 CC service 100
11.10 LU8 service 100
11.10.1 Physical layer service 100
11.10.2 MAC layer service 101
11.10.3 DLC layer service 101
11.11 LU9 - Unprotected Rate Adaption for V series Equipment (RAVE) Service 101
11.11.1 Overview 101

11.11.1.1 FU9 frame structure 102
11.11.1.1.1 General frame structure 102
11.11.1.1.2 FU9 buffering procedures 102
11.11.1.1.3 Connection handover 102
11.11.1.1.4 Transmission order 102
11.11.2 Alignment signal management 103
11.11.2.1 General 103
11.11.2.2 Procedures 103
11.11.3 V.24 Signalling 104
11.11.3.1 General 104
11.11.3.2 Transmitter procedures 105
11.11.3.3 Receiver procedures 105
11.11.4 Rate Coding 105
11.11.4.1 General 105
11.11.4.2 Transmitter procedures 106
11.11.4.3 Receiver procedures 106
11.11.5 DECT Independent Clocking (DIC) 106
11.11.5.1 General 106
11.11.5.2 Measurement of phase differences 106
11.11.5.3 Compensation control rules 107
11.11.5.3.1 General 107
11.11.5.3.2 Optimizing error resilience 108
11.11.5.3.2.1 Procedure for conveying state changes 108
11.11.5.3.2.2 Procedure for executing positive and negative compensation 108
11.11.6 Information field 108
11.11.6.1 General 108
11.11.6.2 User data rates 109
11.11.6.3 Information field filling rule 109
11.11.7 Primitives 110
11.12 LU10 Enhanced Frame RELay (EFREL) Service 110
11.12.1 General 110
11.12.2 Segmentation and transmission class 111
11.12.3 Data transmission 112
11.12.3.1 Send side procedures 112
11.12.3.2 Receive side procedure 112
11.13 LU11 service 112
11.13.1 Physical layer service 112
11.13.2 MAC layer service 112
11.13.3 DLC layer service 112

12 Frame structures for U-plane services 113
12.1 General 113
12.2 FU1 frame structure 113
12.2.1 General frame structure 113
12.2.2 FU1 buffering procedures 114
12.2.3 Minimum delay (speech) operation 115
12.2.4 Connection handover 115
12.2.5 Transmission order 115
12.3 FU2 frame structure 115
12.3.1 General frame structure 115
12.3.2 FU2 buffering procedures 116
12.3.3 Connection handover 116
12.3.4 Transmission order 116
12.4 FU3 frame structure 117
12.4.1 General frame structure 117
12.4.2 FU3 buffering procedures 117
12.4.3 Connection handover 118
12.4.4 Transmission order 118
12.5 FU4 frame structure 118
12.5.1 General frame structure 118
12.5.2 FU4 buffering procedures 119
12.5.3 Connection handover 119

12.5.4 Transmission order 119
12.6 FU5 frame structure....120
12.6.1 General frame structure 120
12.6.2 FU5 buffering procedures....121
12.6.3 Connection handover 121
12.6.4 Transmission order 121
12.7 FU6 frame structure....121
12.7.1 General frame structure 121
12.7.2 FU6 buffering procedures....122
12.7.3 Connection handover 122
12.7.4 Transmission order 122
12.8 FU7 frame structure....122
12.9 FU8 frame structure....123
12.10 FU9 frame structure....123
12.11 FU10 frame structure....123
12.11.1 General frame structure 123
12.11.2 FU10 buffering procedures....124
12.11.3 Connection handover 124
12.11.4 Transmission order 125

13 Elements of procedures and formats of fields for U-plane peer-to-peer communication 125
13.1 General 125
13.2 Address elements....125
13.2.1 Address field format 125
13.2.2 Address field parameters 125
13.3 Length indicator elements 126
13.3.1 Length indicator field format....126
13.3.1.1 Length indicator field format for all services except LU10....126
13.3.1.2 Length indicator field format for service LU10....126
13.3.2 Length indicator field parameters....127
13.3.2.1 Length indicator field parameters for all services except LU10....127
13.3.2.2 Length indicator field parameters for LU10 service 128
13.3.2.2.1 Meaning of the more (M) bit....129
13.4 Sequence number elements....129
13.4.1 Send sequence number format....129
13.4.2 Send sequence number parameters 130
13.4.3 Receive sequence number format....130
13.4.4 Receive sequence number parameters 130
13.5 Fill elements - Fill field format 130

14 U-plane peer-to-peer procedures....131
14.1 General 131
14.2 Frame transmission principles....131
14.2.1 Sequence numbering....131
14.2.2 Acknowledgements....131
14.2.2.1 Sending acknowledgements 131
14.2.2.2 Receiving acknowledgements....131
14.2.3 Transmission classes....132
14.2.3.1 Class 0: No LU_X retransmission or sequencing....132
14.2.3.2 Class 1: no LU_X retransmission....132
14.2.3.3 Class 2: variable throughput, maximum delay LU_X retransmission....132
14.2.3.4 Class 3: fixed throughput LU_X retransmission....133
14.2.4 Operation parameter negotiation....133
14.3 Frame transmission procedures 133
14.3.1 General....133
14.3.2 Class 0 procedures 133
14.3.2.1 Sending side procedure 134
14.3.2.2 Receiving side procedure 134
14.3.3 Class 1 procedures 134
14.3.3.1 Sending side procedure 134
14.3.3.2 Receiving side procedure 135

14.3.4 Class 2 procedures 135
14.3.4.1 Sending side procedure 135
14.3.4.2 Receiving side procedure 137
14.3.5 Class 3 procedures 139
14.3.5.1 Sending side procedure 139
14.3.5.2 Receiving side procedure 140

Annex A (normative): System parameters 141

A.1 LAPC timer values 141

A.2 U-plane timer values 142

A.3 Constants 142
A.3.1 Retransmission counter (N250) 142
A.3.2 Maximum number of CHO attempts (N251) 142

Annex B (normative): Checksum algorithms 143

B.1 Arithmetic conventions 143

B.2 Coding algorithm 143

B.3 Decoding algorithm 143

B.4 Some examples 144

Annex C (informative): MAC connection states 145

Annex D (normative): Mapping of agreed channel rates to MCS sizes 146

D.1 Protected class operation 146

D.2 Unprotected class operation 147

Annex E (informative): Bibliography 148

Annex F (informative): Change history 149

History 150

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (http://webapp.etsi.org/IPR/home.asp).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This European Standard (Telecommunications series) has been produced by ETSI Project Digital Enhanced Cordless Telecommunications (DECT).

The present document is part 4 of a multi-part deliverable. Full details of the entire series can be found in part 1 [1].

Further details of the DECT system may be found in TR 101 178 and ETR 043.

National transposition dates	
Date of adoption of this EN:	27 June 2003
Date of latest announcement of this EN (doa):	30 September 2003
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 March 2004
Date of withdrawal of any conflicting National Standard (dow):	31 March 2004

1 Scope

The present document gives an introduction and overview of the complete Digital Enhanced Cordless Telecommunications (DECT) Common Interface (CI).

The present document specifies the Data Link Control (DLC) layer. The DLC layer is Part 4 of the DECT CI standard and layer 2b of the DECT protocol stack.

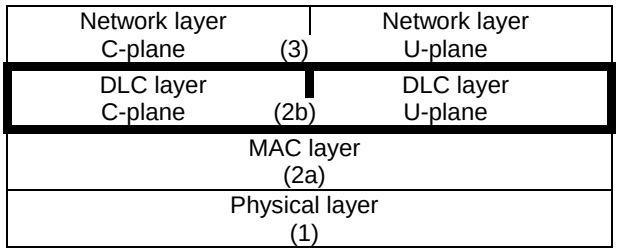

Figure 1.1

Two planes of operation are specified for this DLC (sub)layer. These planes are called the Control plane (C-plane) and the User plane (U-plane).

The C-plane is mostly concerned with the DECT signalling aspects. It provides a reliable point-to-point service that uses a link access protocol to offer error protected transmission of Network (NWK) layer messages. The C-plane also provides a separate point-to-multipoint (broadcast) service (Lb).

The U-plane is only concerned with end-to-end user information. This plane contains most of the application dependent procedures of DECT. Several alternative services (both circuit-mode and packet-mode) are defined as a family of independent entities. Each service provides one or more point-to-point U-plane data links, where the detailed characteristics of those links are determined by the particular needs of each service. The defined services cover a wide range of performance, from "unprotected with low delay" for speech applications to "highly protected with variable delay", for local area network applications.

The present document uses the layered model principles and terminology as described in ITU-T Recommendation X.200 [11] and ITU-T Recommendation X.210 [12].

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

[1] ETSI EN 300 175-1: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 1: Overview".

[2] ETSI EN 300 175-2: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 2: Physical Layer (PHL)".

[3] ETSI EN 300 175-3: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 3: Medium Access Control (MAC) layer".

[4] ETSI EN 300 175-5: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 5: Network (NWK) layer".

[5] ETSI EN 300 175-8: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 8: Speech coding and transmission".

[6] ETSI TS 144 006: "Digital cellular telecommunications system (Phase 2+); Mobile Station - Base Stations System (MS - BSS) Interface; Data Link (DL) Layer Specification (3GPP TS 44.006 version 5.0.0 Release 5)".

[7] ITU-T Recommendation Q.920 (1993): "ISDN user-network interface data link layer - General aspects".

[8] ITU-T Recommendation Q.921: "ISDN user-network interface - Data link layer specification".

[9] ITU-T Recommendation V.42 (1996): "Error-correcting procedures for DCEs using asynchronous-to-synchronous conversion".

[10] ITU-T Recommendation V.110 (2000): "Support by an ISDN of data terminal equipments with V-Series type interfaces".

[11] ITU-T Recommendation X.200 (1994): "Information technology - Open Systems Interconnection - Basic Reference Model: The basic model".

[12] ITU-T Recommendation X.210 (1993): "Information technology - Open systems interconnection - Basic Reference Model: Conventions for the definition of OSI services".

[13] ISO/IEC 8073 (1997): "Information technology - Open Systems Interconnection - Protocol for providing the connection-mode transport service".

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions in EN 300 175-1 [1] apply.

3.2 Symbols and abbreviations

For the purposes of the present document, the following symbols and abbreviations apply:

ACK	(positive) ACKnowledgement
ADU	Adapted Data Unit
ALI	Assigned Link Identifier
AMCI	Advanced MAC Connection Identifier
ARQ	Automatic Repeat Request
ASM	Assigned Link Identifier with Synchronous Mode
BMCI	Basic MAC Connection Identifier
B_S	A logical channel to the MAC layer
BRAT	Basic Rate Adaption service
CHO	Connection HandOver
CHP	Connection Handover Pending
CRFP	Cordless Radio Fixed Part
CRC	Cyclic Redundancy Check
C-plane	Control Plane
C/L	ConnectionLess mode
C/O	Connection Orientated mode
DECT	Digital Enhanced Cordless Telecommunications
DISC	DISConnect
DLC	Data Link Control
DLEI	Data Link Endpoint Identifier (DLC layer)