

ETSI TS 101 808-1 V1.1.1 (2000-09)

Technical Specification

**Digital Enhanced Cordless Telecommunications (DECT);
Wireless Relay Station (WRS);
Test Case Library (TCL);
Part 1: Test Suite Structure (TSS) and Test Purposes (TP)
for Medium Access Control (MAC) layer**



Reference

DTS/DECT-040166-1

Keywords

DECT, MAC, testing, TSS&TP, WRS

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Contents

Intellectual Property Rights	5
Foreword.....	5
1 Scope	6
2 References	6
3 Definitions, symbols and abbreviations	7
3.1 Definitions	7
3.2 Symbols and abbreviations	7
4 Test suite structure	8
4.1 Overview	8
4.2 Test suite structure (TSS)	8
4.2.1 Test groups.....	9
4.2.1.1 FT	9
4.2.1.2 PT	9
4.2.2 Protocol groups	9
4.2.2.1 Downlink broadcast services.....	9
4.2.2.2 Paging services.....	9
4.2.2.3 Bearer set-up services	9
4.2.2.4 Bearer handover services	9
4.2.2.5 Bearer release services	9
4.2.2.6 Data transfer services	9
4.2.2.7 Layer management services	9
4.2.3 Standard ISO subgroups	9
4.2.3.1 Capability (CA) tests.....	9
4.2.3.2 Valid Behaviour (BV) tests	10
4.2.3.3 Invalid Behaviour (BI) tests	10
5 Test Purposes (TP)	10
5.1 Introduction	10
5.1.1 TP definition conventions.....	10
5.1.2 TP naming conventions	10
5.1.3 Sources of TP definitions.....	11
5.2 Test purposes for FT part	11
5.2.1 TP presentation	11
5.2.2 Broadcast services.....	11
5.2.2.1 Downlink broadcast	11
5.2.2.1.1 CA test purposes.....	12
5.2.2.1.2 BV test purposes.....	13
5.2.2.2 Paging services.....	13
5.2.2.2.1 CA test purposes.....	13
5.2.2.2.2 BV test purposes.....	13
5.2.3 Connection oriented services	13
5.2.3.1 Bearer setup.....	13
5.2.3.1.1 CA test purposes.....	14
5.2.3.2 Bearer handover	14
5.2.3.2.1 CA test purposes	14
5.2.3.3 Bearer release	14
5.2.3.3.1 CA test purposes.....	14
5.2.3.3.2 BI test purposes	14
5.2.3.4 Data transfer	15
5.2.3.4.1 CA test purposes.....	15
5.2.3.4.2 BI test purposes	15
5.2.4 Layer management procedures	15
5.2.4.1 CA test purposes	15
5.3 Test purposes for PT part	15

5.3.1	TP presentation	15
5.3.2	Broadcast Services	16
5.3.2.1	Downlink broadcast	16
5.3.2.1.1	BV test purposes	16
5.3.2.2	Paging services	16
5.3.2.2.1	CA test purposes	16
5.3.2.2.2	BV test purposes	16
5.3.3	Connection oriented services	17
5.3.3.1	Bearer set-up	17
5.3.3.1.1	CA test purposes	17
5.3.3.2	Bearer handover	17
5.3.3.2.1	CA test purposes	17
5.3.3.3	Bearer release	17
5.3.3.3.1	CA test purposes	17
5.3.3.3.2	BI test purposes	18
5.3.3.4	Data transfer	18
5.3.3.4.1	CA test purposes	18
5.3.3.4.2	BI test purposes	18
5.3.4	Layer management procedures	18
5.3.4.1	CA test purposes	19
	Bibliography	20
	History	21

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Foreword

This Technical Specification (TS) has been produced by ETSI Project Digital Enhanced Cordless Telecommunications (DECT).

The present document is part 1 of a multi-part deliverable covering the Digital Enhanced Cordless Telecommunications (DECT); Wireless Relay Station (WRS); Test Case Library (TCL), as identified below:

Part 1: "Test Suite Structure (TSS) and Test Purposes (TP) for Medium Access Control (MAC) layer";

Part 2: "Abstract Test Suite (ATS) for Medium Access Control (MAC) layer - Cordless Radio Fixed Part Portable radio Termination (CRFP_PT)";

Part 3: "Abstract Test Suite (ATS) for Medium Access Control (MAC) layer - Cordless Radio Fixed Part Fixed radio Termination (CRFP_FT)";

Part 4: "Test Suite Structure (TSS) and Test Purposes (TP) - Data Link Control (DLC) layer";

Part 5: "Abstract Test Suite (ATS) - Data Link Control (DLC) layer; Cordless Radio Fixed Part Portable radio Termination (CRFP_PT)";

Part 6: "Abstract Test Suite (ATS) - Data Link Control (DLC) layer; Cordless Radio Fixed Part Fixed radio Termination (CRFP_FT)";

Part 7: "Test Suite Structure (TSS) and Test Purposes (TP) - Network (NWK) layer";

Part 8: "Abstract Test Suite (ATS) for Network (NWK) layer - Cordless Radio Fixed Part Portable radio Termination (CRFP_PT)";

Part 9: "Abstract Test Suite (ATS) for Network (NWK) layer - Cordless Radio Fixed Part Fixed radio Termination (CRFP_FT)".

1 Scope

The present document contains the Test Suite Structure (TSS) and Test Purposes (TP) to test the DECT Wireless Relay Station (WRS) Medium Access Control (MAC) layer.

The objective of the present document is to provide a basis for conformance tests for DECT equipment giving a high probability of air interface inter-operability between different manufacturer's DECT equipment.

The ISO standard for the methodology of conformance testing (ISO/IEC 9646-1 [4] and ISO/IEC 9646-2 [5]) as well as the ETSI rules for conformance testing (ETS 300 406 [3]) are used as a basis for the test methodology.

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, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

- [1] ETSI EN 300 175-3: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 3: Medium Access Control (MAC) Layer".
- [2] ETSI EN 300 175-6: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 6: Identities and Addressing".
- [3] ETSI ETS 300 406: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
- [4] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts ". (See also CCITT Recommendation X.290 (1991)).
- [5] ISO/IEC 9646-2: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract Test Suite specification". (See also CCITT Recommendation X.291 (1991)).
- [6] ISO/IEC 9646-6: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 6: Protocol profile test specification".
- [7] ISO/IEC 9646-7: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
- [8] ETSI EN 300 700: "Digital Enhanced Cordless Telecommunications (DECT); Wireless Relay Station (WRS)".

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

- a) the terms given in ISO/IEC 9646-7 [7]; and
- b) the definitions given in EN 300 175-3 [1];
- c) the PT side of the WRS is called WRS_PT side. The FT side of the WRS is called WRS_FT side.

3.2 Symbols and abbreviations

For the purposes of the present document, the symbols and abbreviations given in ISO/IEC 9646-1 [4], ISO/IEC 9646-6 [6], ISO/IEC 9646-7 [7] and given in EN 300 175-3 [1] apply. In particular, the following symbols and abbreviations apply:

ARQ	Automatic Repeat Request
BI	Invalid Behaviour
BV	Valid Behaviour
C/O	Connection Oriented
CA	Capability tests
CI	Common Interface
C _s	higher layer signalling Channel (slow)
DECT	Digital Enhanced Cordless Telecommunications
DLC	Data Link Control
FP	Fixed Part
FT	Fixed radio Termination
I	higher layer Information channel (see I _N and I _P)
I _N	higher layer Information channel (unprotected)
I _P	higher layer Information channel (protected)
IUT	Implementation Under Test
LLME	Lower Layer Management Entity
MAC	Medium Access Control
N _T	identities channel
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
P _T	Paging channel
PT	Portable radio Termination
Q _T	system information channel
RF	Radio Frequency
RFP	Radio Fixed Part
TP	Test Purposes
TSS	Test Suite Structure

4 Test suite structure

4.1 Overview

MAC layer is layer 2a of the DECT protocol stack.

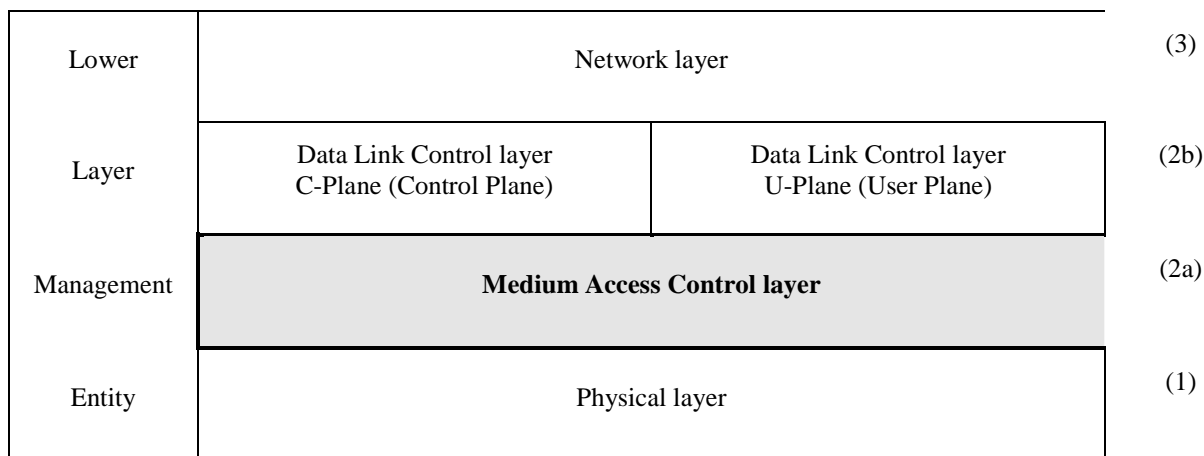


Figure 1: DECT protocol stack

MAC layer specifies three groups of services:

- the broadcast message control service;
- the connectionless message control service; and
- the multi-bearer control service.

The MAC layer also specifies the logical channels that are used by the above mentioned services, and how they are multiplexed and mapped into the service data units that are exchanged with the physical layer.

4.2 Test suite structure (TSS)

The test suite is structured in three levels. The first level is representing the two test groups FT and PT. The second level separates each test group in seven protocol groups. The last level in each branch contains one or more of the standard ISO subgroups CA, BV and BI.

Figure 2 shows the MAC Test Suite Structure (TSS).

Test groups	Protocol groups	Standard ISO subgroups
FT/PT	Downlink broadcast	CA
		BV
	Paging services	CA
		BV
	Bearer set-up	CA
		CA
	Bearer handover	CA
		CA
	Bearer release	CA
		BI
	Data transfer	CA
		BI
	Layer management	CA

Figure 2: MAC TSS for DECT Wireless Relay Station

4.2.1 Test groups

4.2.1.1 FT

This test group represents the termination of the side of the WRS, which is acting like a fixed part termination. Furthermore this test group is also representing the termination of the fixed part itself. These two completely different configurations are summarized in one test group in order to stay conformant with the naming convention FT/PT of previous released DECT test purpose documents. To be able to differentiate the test purposes the following naming convention applies:

- TP/FT/BS/BV-WRS00: Test purpose for WRS_FT side;
- TP/FT/BS/BV-FT00: Test purpose for FT.

4.2.1.2 PT

The test group is representing the termination of the portable part.

4.2.2 Protocol groups

4.2.2.1 Downlink broadcast services

See EN 300 175-3 [1], clause 9.

4.2.2.2 Paging services

See EN 300 175-3 [1], clause 9.

4.2.2.3 Bearer set-up services

See EN 300 175-3 [1], clause 10.

4.2.2.4 Bearer handover services

See EN 300 175-3 [1], clause 10.

4.2.2.5 Bearer release services

See EN 300 175-3 [1], clause 10.

4.2.2.6 Data transfer services

See EN 300 175-3 [1], clause 10.

4.2.2.7 Layer management services

See EN 300 175-3 [1], clause 11.

4.2.3 Standard ISO subgroups

4.2.3.1 Capability (CA) tests

This test sub group shall provide limited testing of the major IUT capabilities aiming to insure that the claimed capabilities are correctly supported, according to the PICS.

4.2.3.2 Valid Behaviour (BV) tests

This test sub group shall verify that the IUT reacts in conformity with the EN 300 700 [8], after receipt or exchange of a valid Protocol Data Units (PDUs). Valid PDUs means that the exchange of messages and the content of the exchanged messages are considered as valid.

4.2.3.3 Invalid Behaviour (BI) tests

This test sub group shall verify that the IUT reacts in conformity with the EN 300 700 [8], after receipt of a syntactically invalid PDU.

5 Test Purposes (TP)

5.1 Introduction

5.1.1 TP definition conventions

The TPs are defined following particular rules as shown in table 1.

Table 1: TP definition rules

TP Id according to the TP naming conventions	Reference Initial condition Stimulus Expected behaviour
TP Id	The TP Id is a unique identifier it shall be specified according to the TP naming conventions defined in the subclause 5.1.2.
Reference	The reference should contain the references of the subject to be validated by the actual TP (specification reference, clause, and paragraph).
Condition	The condition defines in which initial state the IUT has to be to apply the actual TP.
Stimulus	The stimulus defines the test event to which the TP is related.
Expected behaviour	Definition of the events that are expected from the IUT to conform to the base specification.

5.1.2 TP naming conventions

The identifier of the TP is built according to table 2.

Table 2: TP naming convention

TP/<rt>/<fm>/<x>-<nn>		
<rt> = type of radio termination	FT	Fixed radio Termination
	PT	Portable radio Termination
<fm> = functional module	DB	Downlink Broadcast
	PG	Paging services
	BS	Bearer set-up
	BH	Bearer handover
	BR	Bearer release
	DT	Data transfer
	LM	Layer Management
x = Type of testing	CA	Capability Tests
	BV	Valid Behaviour Tests
	BI	Invalid Behaviour Tests
<nn> = sequential number and different terminations	(WRS00-WRS99) (FT00-FT99)	Test Purpose Number

5.1.3 Sources of TP definitions

All TPs are specified according to EN 300 175-3 [1] and EN 300 700 [8].

5.2 Test purposes for FT part

5.2.1 TP presentation

Test purposes are presented by a logical grouping related to MAC services. The naming is in line with the test suite structure.

5.2.2 Broadcast services

5.2.2.1 Downlink broadcast

Test group objective:	Verify the correct implementation of the Downlink broadcast services.
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5.2.2.1.1 CA test purposes

TP/FT/DB/CA-WRS00	EN 300 175-3 [1], subclause 6.2.2.1. For WRS_FT side. Initial state: Active_idle. Check that the IUT transmits constantly at least in frame 14 of each multiframe, the correct NT message.
TP/FT/DB/CA-WRS01	EN 300 175-3 [1], subclauses 6.2.2.1 to 9.1.3. For WRS_FT side. Initial state: Active_idle. Check that the IUT transmits constantly at least once every T205 seconds in frame 0, the correct NT message.
TP/FT/DB/CA-WRS02	EN 300 175-3 [1], subclauses 6.2.2.1 to 7.2.3. For WRS_FT side. Initial state: Active_idle. Check that the IUT transmits constantly one correct QT message in frame 8 of each multiframe.
TP/FT/DB/CA- WRS03	EN 300 175-3 [1], subclauses 6.2.2.1 to 7.2.3.2. For WRS_FT side. Initial state: Active_idle. Check that the IUT transmits constantly at least one static system information QT message in each interval of 8 multiframe and that all such messages are correct.
TP/FT/DB/CA- WRS04	EN 300 175-3 [1], subclauses 6.2.2.1 to 7.2.3.4. For WRS_FT side. Initial state: Active_idle. Check that the IUT transmits constantly at least one fixed part capabilities QT message in each interval of 8 multiframe and that all such messages are correct.
TP/FT/DB/BV- WRS05	EN 300 700 [8], subclause 4.4.2.1, annex C subclause C.1.1.1. For WRS_FT side. Initial state: Active_idle. Check that the IUT broadcasts a correct extended fixed part capabilities message at least once in every 8 multi frames.
TP/FT/DB/CA- WRS06	EN 300 175-3 [1], subclauses 6.2.2.1 to 7.2.3. Only for WRS_FT side supporting encryption. Initial state: Active_idle. Check that the IUT transmits constantly at least one multiframe number QT message in each interval of 8 multiframe and that all such messages are correct.
TP/FT/DB/CA- WRS07	EN 300 175-3 [1], subclauses 6.2.2.1 to 7.2.3.6. Only for WRS_FT side supporting SARI. Initial state: Active_idle. Check that the IUT transmits constantly at least one SARI list content QT message in each interval of 4 multiframe and that all such messages are correct.
TP/FT/DB/CA- WRS08	EN 300 175-3 [1], subclauses 6.2.2.1 to 7.2.3.3. Only for WRS_FT side supporting extended RF. Initial state: Active_idle. Check that the IUT transmits the correct "Extended RF carrier information" QT message in the multiframe following the "Static system information" QT message with the Extended RF carrier bit set.

5.2.2.1.2 BV test purposes

TP/FT/DB/BV-WRS00	EN 300 175-3 [1], subclauses 6.2.2.1 to 7.2.2, EN 300 175-6 [2], subclause 7.1. For WRS_FT side. Initial state: Inactive. Check that once a SARI is introduced into the FT, the E-bit within the NT message is indicating SARI list available.
TP/FT/DB/BV- WRS01	EN 300 700 [8], subclause 4.4.2.2. For WRS_FT side. Initial state: Active_idle. Verify that the WRS that is locked to an FT decreases the value HOPS to 0 of the corresponding FT.
TP/FT/DB/BV- FT00	EN 300 700 [8], subclause 4.4.2.1, annex C subclause C.1.1.1. For FT side. Initial state: Active_idle. Check that the IUT broadcasts a correct extended fixed part capabilities message at least once in every 8 multi frames.
TP/FT/DB/BV- FT01	EN 300 700 [8], subclause 4.4.2.2, For FT side. Verify that a FT that supports CRFP broadcasts HOPS > 0, and that a FT that does not support CRFP broadcasts HOPS = 0.

5.2.2.2 Paging services

Test group objective:	Verify the correct implementation of the Paging services.
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5.2.2.2.1 CA test purposes

TP/FT/PG/CA-WRS00	EN 300 175-3 [1], subclause 9.1.3. For WRS_FT side. Initial state: Active_idle. Check that the IUT can transmit (FT part normal paging mode) a short page message.
TP/FT/PG/CA-WRS01	EN 300 175-3 [1], subclause 9.1.3. Only for WRS_FT side that has blind slots or moving dummy bearer or does not support bearer handover within the whole WRS_FT side. Initial state: Active_idle. Check that the FT can transmit a correct zero length page message.

5.2.2.2.2 BV test purposes

TP/FT/PG/BV-WRS00	EN 300 175-3 [1], subclause 9.1.3. For WRS_FT side. Initial state: Active_idle. Check that the IUT manages correctly the paging Extended Flag when it transmits or receives paging messages. UNTESTABLE
TP/FT/PG/BV-WRS01	EN 300 175-3 [1], subclause 11.8. Only for WRS_FT side that shall transmit blind slot information. Initial state: Active_idle. Check that the IUT periodically announces (at least every 10s) its blind slots.

5.2.3 Connection oriented services

5.2.3.1 Bearer setup

Test group objective:	Verify the correct implementation of the C/O Bearer setup services.
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5.2.3.1.1 CA test purposes

TP/FT/BS/CA-WRS00	EN 300 700 [8], subclause 5.3.1.1.2. For WRS_FT side. Initial state: Active_idle. Check that the IUT manages rightly the PT initiated (single) basic bearer set-up procedure with wait messages.
TP/FT/BS/CA-FT00	EN 300 700 [8], subclause 5.3.1.1.3, figure 4. For FT only. Initial state: Active_idle. Verify that the IUT manages rightly the dual bearer set-up.

5.2.3.2 Bearer handover

Test group objective:	Verify the correct implementation of the C/O Bearer handover services.
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5.2.3.2.1 CA test purposes

TP/FT/BH/CA-WRS00	EN 300 700 [8], subclause 5.3.1.3. For WRS_FT supporting intracell bearer handover. Initial state: Active_traffic or Active_traffic_and_idle. Check that the IUT responds rightly to a PT initiated intercell bearer handover procedure from a RFP to a CRFP.
TP/FT/BH/CA-WRS01	EN 300 700 [8], subclause 5.3.1.3. For WRS_FT supporting intracell bearer handover. Initial state: Active_traffic or Active_traffic_and_idle. Check that the IUT responds rightly to a PT initiated intracell bearer handover procedure from a RFP to a CRFP.

5.2.3.3 Bearer release

Test group objective:	Verify the correct implementation of the C/O Bearer release services.
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5.2.3.3.1 CA test purposes

TP/FT/BR/CA-WRS00	EN 300 700 [8], subclause 5.3.1.1.4. For WRS_FT side. Initial state: Active_traffic or Active_traffic_and_idle. Check that the IUT manages rightly a release of a basic duplex bearer with an unacknowledged release procedure when receiving a release message.
TP/FT/BR/CA-WRS01	EN 300 700 [8], subclause 5.3.1.1.5, figure 5a. For WRS_FT side. Initial state: Active_traffic or Active_traffic_and_idle. Check that the IUT releases the PT—CRFP connection, in case the CRFP—FT connection is lost.

5.2.3.3.2 BI test purposes

TP/FT/BR/BI-WRS00	EN 300 700 [8], subclause 5.3.1.1.4. For WRS_FT side. Initial state: Active_traffic or Active_traffic_and_idle. Check that the IUT manages rightly a release of a basic duplex bearer with an unacknowledged release procedure when it detects a bearer failure.
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5.2.3.4 Data transfer

Test group objective:	Verify the correct implementation of the C/O Data transfer services.
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5.2.3.4.1 CA test purposes

TP/FT/DT/CA-WRS00	EN 300 175-3 [1], subclause 10.8.1.1. For WRS_FT side. Initial state: Active_traffic or Active_traffic_and_idle. Check that the IUT re-transmits C _s segment until it receives an acknowledgement in the same Automatic Repeat Request (ARQ) window.
TP/FT/DT/CA-WRS01	EN 300 175-3 [1], subclause 10.8.1.1. For WRS_FT side. Initial state: Active_traffic or Active_traffic_and_idle. Check that the IUT does not transmit another C _s segment until the successful transmission of the current segment.
TP/FT/DT/CA-WRS02	EN 300 175-3 [1], subclause 10.8.1.1. For WRS_FT side. Initial state: Active_traffic or Active_traffic_and_idle. Check that the IUT manages correctly the one bit numbering of the C _s segments.

5.2.3.4.2 BI test purposes

TP/FT/DT/BI-WRS00	EN 300 175-3 [1], subclause 10.8.1.3. For WRS_FT side. Initial state: Active_traffic or Active_traffic_and_idle. Check that the IUT, when receiving IN minimum delay data, is capable to detect A-field R-CRC error and to respond with the correct Q2 bit setting (Q2 = 0).
TP/FT/DT/BI-WRS01	EN 300 175-3 [1], subclause 10.8.1.3. For WRS_FT side. Initial state: Active_traffic or Active_traffic_and_idle. Check that the IUT sets the Q1 and Q2 bits correctly when it receives data with Z-field error during IN minimum delay transfer.

5.2.4 Layer management procedures

Test group objective:	Verify the correct implementation of the LLME MAC layer management procedures.
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5.2.4.1 CA test purposes

TP/FT/LM/CA-WRS00	EN 300 175-3 [1], subclause 10.6.2. For WRS_FT side. Initial state: Active_traffic or Active_traffic_and_idle. Check that the IUT, after the establishment of a new bearer during bearer handover, releases one of the two bearers within a time interval of T203 seconds.
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5.3 Test purposes for PT part

5.3.1 TP presentation

Test purposes are presented by a logical grouping related to MAC services. The naming is in line with the test suite structure.

5.3.2 Broadcast Services

5.3.2.1 Downlink broadcast

Test group objective:	Verify the correct implementation of the Downlink broadcast services.
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5.3.2.1.1 BV test purposes

TP/PT/DB/BV-WRS00	EN 300 175-3 [1], subclause 11.3.2. For WRS_PT side. Initial state: Active_unlocked. Check that the IUT can receive constantly from FT system information QT message and identity NT message and to enter idle locked state. UNTESTABLE
TP/PT/DB/BV-WRS01	EN 300 175-3 [1], subclause 7.2.3.3. For WRS_PT side. Initial state: Idle_locked. Check that the IUT is able to establish a bearer after reception of the extended RF carrier information QT message.
TP/PT/DB/BV-WRS02	EN 300 175-3 [1], subclause 4.4.2.1. For WRS_PT side. Initial state: Idle_locked. Verify that the IUT does not subscribe to the FT if the extended fixed part capabilities are not sent.

5.3.2.2 Paging services

Test group objective:	Verify the correct implementation of the Paging services.
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5.3.2.2.1 CA test purposes

TP/PT/PG/CA-WRS00	EN 300 175-3 [1], subclause 9.1.3. Always for WRS_PT side only. Initial state: Idle_locked. Check that the IUT can receive (PT part normal idle locked mode) a short page message.
TP/PT/PG/CA-WRS01	EN 300 175-3 [1], subclause 9.1.3. For WRS_PT side. Initial state: Idle_locked. Check that the PT can receive a correct zero length page message.

5.3.2.2.2 BV test purposes

TP/PT/PG/BV-WRS00	EN 300 175-3 [1], subclause 9.1.3. For WRS_PT side. Initial state: Idle_locked. Check that the IUT manages correctly the paging Extended Flag when it transmits or receives paging messages. UNTESTABLE
TP/PT/PG/BV-WRS01	EN 300 175-3 [1], subclause 7.2.4.3. For WRS_PT side. Initial state: Idle_locked. Check that the PT does not set-up a bearer on a slot announced to be blind, after reception of a PT blind full slot information message.
TP/PT/PG/BV-WRS02	EN 300 175-3 [1], subclause 7.2.4.3. For WRS_PT side. Initial state: Idle_locked. Check that the PT stays locked to a FT, based on reception of other bearer and dummy or CL-bearer position zero length PT messages.

5.3.3 Connection oriented services

5.3.3.1 Bearer set-up

Test group objective:	Verify the correct implementation of the C/O Bearer set-up services.
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5.3.3.1.1 CA test purposes

TP/PT/BS/CA-WRS00	EN 300 700 [8], subclause 5.3.1.1.2. For WRS_PT side. Initial state: Idle_locked. Check that the IUT manages rightly the PT initiated (single) basic bearer set-up procedure without wait messages.
TP/PT/BS/CA-WRS01	EN 300 700 [8], subclause 5.3.1.1.3. For WRS_PT side. Initial state: Idle_locked. Check that the IUT manages rightly the PT initiated dual bearer set-up procedure without wait messages for encrypted connections to an encryption capable FT.

5.3.3.2 Bearer handover

Test group objective:	Verify the correct implementation of the C/O Bearer handover services.
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5.3.3.2.1 CA test purposes

TP/PT/BH/CA-WRS00	EN 300 700 [8], subclause 5.3.1.3. For WRS_PT side. Initial state: Active_locked. Check that the IUT, for a duplex bearer, correctly initiates and completes an intercell bearer handover procedure from a RFP to a CRFP using basic set-up.
TP/PT/BH/CA-WRS01	EN 300 700 [8], subclause 5.3.1.3. For WRS_PT side. Initial state: Active_locked. Check that the IUT, for a duplex bearer, correctly initiates and completes an intracell bearer handover procedure from a RFP to a CRFP using basic set-up.

5.3.3.3 Bearer release

Test group objective:	Verify the correct implementation of the C/O Bearer release services.
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5.3.3.3.1 CA test purposes

TP/PT/BR/CA-WRS00	EN 300 700 [8], subclause 5.3.1.1.4. For WRS_PT side. Initial state: Active_locked. Check that the IUT manages rightly a release of a basic duplex bearer with an unacknowledged release procedure when receiving a release message.
TP/PT/BR/CA-WRS01	EN 300 700 [8], subclause 5.3.1.1.5, figure 5b. For WRS_PT side. Initial state: Active_locked. Check that the IUT releases the CRFP—FT connection, in case the PT—CRFP connection is lost.

5.3.3.3.2 BI test purposes

TP/PT/BR/BI-WRS00	EN 300 700 [8], subclause 5.3.1.1.4. For WRS_PT side. Initial state: Active_locked. Check that the IUT manages rightly a release of a basic duplex bearer with an unacknowledged release procedure when it detects a bearer failure.
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5.3.3.4 Data transfer

Test group objective:	Verify the correct implementation of the C/O Data transfer services.
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5.3.3.4.1 CA test purposes

TP/PT//DT/CA-WRS00	EN 300 175-3 [1], subclause 10.8.1.1. For WRS_PT side. Initial state: Active_locked. Check that the IUT re-transmits C _s segment until it receives an acknowledgement in the same Automatic Repeat Request (ARQ) window.
TP/PT/DT/CA-WRS01	EN 300 175-3 [1], subclause 10.8.1.1. For WRS_PT side. Initial state: Active_locked. Check that the IUT does not transmit another C _s segment until the successful transmission of the current segment.
TP/PT/DT/CA-WRS02	EN 300 175-3 [1], subclause 10.8.1.1. For WRS_PT side. Initial state: Active_locked. Check that the IUT manages correctly the one bit numbering of the C _s segments.

5.3.3.4.2 BI test purposes

TP/PT/DT/BI-WRS00	EN 300 175-3 [1], subclause 10.8.1.3. For WRS_PT side. Initial state: Active_locked. Check that the IUT, when receiving IN minimum delay data, is capable to detect A-field R-CRC error and to respond with the correct Q2 bit setting (Q2 = 0).
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5.3.4 Layer management procedures

Test group objective:	Verify the correct implementation of the LLME MAC layer management procedures.
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5.3.4.1 CA test purposes

TP/PT/LM/CA-WRS00	EN 300 175-3 [1], subclause 10.2. For WRS_PT side. Initial state: Idle_locked. Check that the IUT manages rightly the protocol constant N200.
TP/PT/LM/CA- WRS01	EN 300 175-3 [1], subclause 10.2. For WRS_PT side. Initial state: Idle_locked. Check that the IUT manages rightly the protocol timer T200.
TP/PT/LM/CA- WRS02	EN 300 175-3 [1], subclause 11.3. For WRS_PT side. Initial state: Idle_locked. Check that the IUT manages rightly the protocol timer T207.
TP/PT/LM/CA- WRS03	EN 300 175-3 [1], subclause 11.3. For WRS_PT side. Initial state: Idle_locked. Check that the IUT manages rightly the protocol timer T208.
TP/PT/LM/CA- WRS04	EN 300 175-3 [1], subclause 10.6.2. For WRS_PT side. Initial state: Active_locked. Check that the IUT makes at most N201 bearer set-up re-attempts for bearer handover of one particular bearer and within a time window of T202 seconds.

Bibliography

The following material, though not specifically referenced in the body of the present document (or not publicly available), gives supporting information.

- ETSI EN 300 175-1: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 1: Overview".
- ETSI EN 300 175-2: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 2: Physical Layer (PHL)".
- ETSI EN 300 175-4: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 4: Data Link Control (DLC) Layer".
- ETSI EN 300 175-5: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 5: Network (NWK) Layer".
- ETSI EN 300 175-7: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 7: Security Features".
- ETSI EN 300 175-8: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 8: Speech Coding and Transmission".
- ISO/IEC 9646-3 (1998): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: The Tree and Tabular Combined Notation (TTCN)". (See also CCITT Recommendation X.292 (1992)).

History

Document history		
V1.1.1	September 2000	Publication