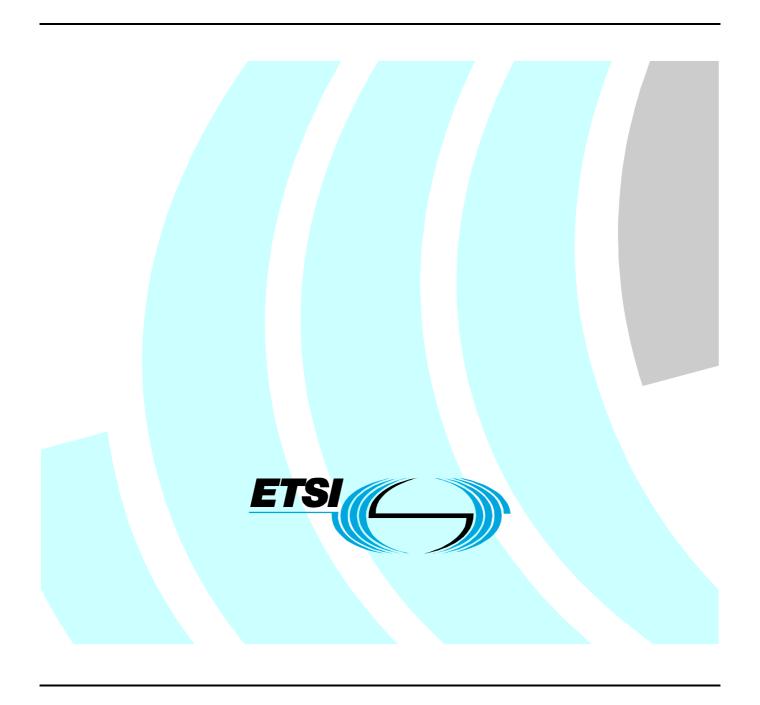# ETSI TS 101 823-2-2 V1.2.1 (2001-12)

Technical Specification

**Broadband Radio Access Networks (BRAN);
HIPERLAN Type 2;
Conformance testing for the
Data Link Control (DLC) layer;
Part 2: Radio Link Control (RLC) sublayer;
Sub-part 2: Test Suite Structure and
Test Purposes (TSS&TP) specification**

Reference

RTS/BRAN-002T0A4-2-2

Keywords

access, HIPERLAN, testing

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.fr

Copyright Notification

Contents

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 Technical Specification (TS) has been produced by ETSI Project Broadband Radio Access Networks (BRAN).

The present document is part 2, sub-part 2 of a multi-part deliverable covering Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Conformance testing for the Data Link Control (DLC) layer, as identified below:

    Part 1:   "Basic data transport function";

    Part 2:   "Radio Link Control (RLC) sublayer";

        Sub-part 1:   "Protocol Implementation Conformance Statement (PICS) proforma";

        Sub-part 2:   "Test Suite Structure and Test Purposes (TSS&TP) specification";

        Sub-part 3:   "Abstract Test Suite (ATS) specification".

    Part 3:   "Profile for Business Environment";

    Part 4:   "Extension for Home Environment";

    Part 5:   "Profile for Home Environment".

1   Scope

The present document contains the Test Suite Structure (TSS) and Test Purposes (TP) to test the BRAN HIPERLAN type 2; Data Link Control (DLC) layer; Radio Link Control (RLC) sublayer [1].

The objective of the present document is to provide a basis for conformance tests for BRAN HIPERLAN type 2 equipment giving a high probability of air interface inter-operability between different manufacturer's BRAN HIPERLAN type 2 equipment.

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

[1]   ETSI TS 101 761-2 (V1.1.1): "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Data Link Control (DLC) layer; Part 2: Radio Link Control (RLC) Sublayer".

[2]   ETSI ETS 300 406: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

[3]   ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".

[4]   ISO/IEC 9646-2: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract test suite specification".

[5]   ISO/IEC 9646-6: "Information technology - O²pen Systems Interconnection - Conformance testing methodology and framework - Part 6: Protocol profile test specification".

[6]   ISO/IEC 9646-7: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation conformance statement".

3   Definitions and abbreviations

3.1   Definitions

For the purposes of the present document, the terms and definitions given in ISO/IEC 9646-7 [6] and TS 101 761-2 [1] apply.

3.2 Abbreviations

For the purposes of the present document, the abbreviations defined in ISO/IEC 9646-1 [3], ISO/IEC 9646-6 [5], ISO/IEC 9646-7 [6], TS 101 761-2 [1] and the following apply:

ACF	Association Control Function
AP	Access Point
APT	Access Point Transceiver
BI	Invalid Behaviour
BO	Inopportune Behaviour
BV	Valid Behaviour
CA	CApability tests
CC	Central Controller
CL	Convergence Layer
DFS	Dynamic Frequency Selection
DLC	Data Link Control
DM	Direct Mode
DUC	DLC User Connection
IUT	Implementation Under Test
MAC	Medium Access Control
MT	Mobile Terminal
PDU	Protocol Data Unit
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
RLC	Radio Link Control
RRC	Radio Resource Control
TP	Test Purposes
TSS	Test Suite Structure

4   Test suite structure

4.1   Structure

Figure 1 shows the RLC Test Suite Structure (TSS) including its subgroups defined for the conformance testing.

Test Suite	Protocol group	Protocol subgroup	Test group				
			CA	BV	BI	BO	TI
RLC-AP/ RLC-MT	Association control function	RBCH association	x				
		Mac ID assignment	x				
		Link_Capability	x				
		Encryption	x				
		Authentication	x				
		Common Key	x				
		Info_Transfer	x				
		Multicast	x				
		Disassociation	x				
		Key refresh	x				
	Radio Resource Control	DFS Requesting	x				
		DFS Reporting	x				
		Sector Handover	x				
		Radio Handover	x				
		Network Handover	x				
		Sleep	x				
		Alive	x				
		Absence	x				
	DLC user connection	CM Set-up	x				
		CM Release	x				
		CM Modify	x				
		CM Reset	x				
		DM Set-up	x				
		DM Release	x				
		DM Modify	x				
		DM Relay Set-up	x				
		DM Relay Release	x				
		DM Relay Modify	x				
		DM Reset	x				

Figure 1: TSS for HIPERLAN 2 RLC

The test suite is structured as a tree with a first level defined as RLC-AP or RLC-MT representing the protocol group "RLC for AP and RLC for MT".

4.2   Test groups

The test groups are organized in three levels. The first level creates three protocol groups representing the protocol services. The second level separates the protocol services in functional modules. The last level in each branch contains one or more of the standard ISO subgroups CA, BV, BI, BO and TI.

4.2.1   Protocol groups

The protocol groups identify the RLC services: Association control function, Radio resource control function, and DLC user connection function, as defined in TS 101 761-2 [1].

4.2.1.1   Association control function

The association control function group is divided in ten functional modules. The first functional module identifies the RBCH association procedures. The second functional module identifies the Mac Id assignment procedures. The third functional module distinguishes the Link Capability procedures. The fourth functional module distinguishes the Encryption procedures. The fifth functional module distinguishes the Authentication procedures. The sixth functional module distinguishes the information transfer procedures. The seventh functional module distinguishes the common key distribution procedures. The eighth functional module distinguishes the multicast procedures. The ninth functional module distinguishes the disassociation procedures. The last functional module identifies the key refresh procedures.

4.2.1.2   Radio resource control function

The Radio resource control protocol group is divided in eight functional modules. The first functional module distinguishes the DFS requesting procedures. The second functional module distinguishes the DFS reporting procedures. The third functional module distinguishes the Sector handover procedures. The fourth functional module identifies the radio handover procedures. The fifth functional module distinguishes the network handover procedures. The sixth functional module distinguishes the sleep procedures. The seventh functional module distinguishes the alive procedures. The last functional module distinguishes the absence procedures.

4.2.1.3   DLC user connection function

The DLC user connection protocol group is divided in eight functional modules. The first functional module identifies the centralized mode set-up procedures. The second functional module identifies the centralized mode release procedures. The third functional module identifies the centralized mode modify procedures. The fourth functional module identifies the centralized mode reset procedures. The fifth functional module distinguishes the direct mode set-up procedures. The sixth functional module distinguishes the direct mode release procedures. The seventh functional module distinguishes the direct mode modify procedures. The four last functional modules distinguish the direct mode relay procedures and the direct mode reset procedure.

4.2.2   Main test groups

The main test groups are the capability group, the valid behaviour group, the invalid behaviour group and the inopportune behaviour group.

4.2.2.1   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.

4.2.2.2   Valid Behaviour (BV) tests

This test sub group shall verify that the IUT reacts in conformity with TS 101 761-2 [1], after receipt or exchange of valid Protocol Data Units (PDUs). Valid PDUs means that the exchange of messages and the content of the exchanged messages are considered as valid.

4.2.2.3   Invalid Behaviour (BI) tests

This test sub group shall verify that the IUT reacts in conformity with TS 101 761-2 [1], after receipt of a syntactically invalid PDU.

4.2.2.4   Inopportune Behaviour (BO) tests

This test sub group shall verify that the IUT reacts in conformity with TS 101 761-2 [1], after receipt of a syntactically correct PDU not expected in the actual message exchange.

4.2.2.5   Timer (TI) tests

This test sub group shall verify that the IUT reacts in conformity with TS 101 761-2 [1], after timer activity (start, stop, expiration, etc.).

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 clause 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

Identifier:	TP/<st>/<pg>/<fm>/<x>-<nnn>		
	<st> = side type	AP	Access Point
		MT	Mobile Terminal
	<pg> = protocol group	ACF	Association control function
		RRC	Radio resource control function
		DUC	DLC user connection function
	<fm> = functional module	RA	RBCH association
		MA	Mac Id assignment
		LC	Link_Capability
		EN	Encryption
		AU	Authentication
		CK	Common Key distribution
		IT	Info_Transfer
		MT	Multicast
		DI	Disassociation
		KR	Key refresh
		AR	Association rejection
		RQ	DFS Requesting
		RP	DFS Reporting
		SH	Sector Handover
		RH	Radio Handover
		NH	Network Handover
		HR	Handover rejection
		SL	Sleep
		AL	Alive
		AB	Absence
		CS	Centralized Mode Set-up
		CR	Centralized Mode Release
		CM	Centralized Mode Modify
		CT	Centralized Mode Reset
		DS	Direct Mode Set-up
		DR	Direct Mode Release
		DM	Direct Mode Modify
		RS	Direct Mode Relay Set-up
		RR	Direct Mode Relay Release
		RM	Direct Mode Relay Modify
		DT	Direct Mode Reset
		UM	Unsupported message
	x = Type of testing	CA	Capability Tests
		BV	Valid Behaviour Tests
		BI	Invalid Behaviour Tests
		BO	Inopportune Behaviour Tests
		TI	Timer Tests
	<nnn> = sequential number	(000-999)	Test Purpose Number

EXAMPLE: TP/MT/DFS/RP/BV-010 is the tenth purpose for the valid behaviour testing of the reporting
procedures of the dynamic frequency selection function implemented at MT side.

5.1.3   Sources of TP definitions

All TPs are specified according to TS 101 761-2 [1].

5.2   Test purposes for AP

5.2.1   Association control function

5.2.1.1   RBCH Association

TP/AP/ACF/RA/CA-000	Reference: TS 101 761-2 [1], clause 5.1.1.1 Initial condition: MT_disassociated_from_AP. Check, that the IUT sends periodically the RBCH_ASSOCIATION message.
TP/AP/ACF/RA/CA-001	Reference: TS 101 761-2 [1], clause 5.1.1.1 Initial condition: MT_disassociated_from_AP. Check, that the IUT, having received a RLC_RBCH_ASSOCIATION_REQ message reply with the relevant RLC_RBCH_ASSOCIATION message.

A configuration primitive is used to initialize the tester with the expected value of the broadcast variables: Number of sectors, NET ID, AP ID, AP TX level, AP RX UL level, Version indicator, AP traffic load indicator, Maximum power indicator.

5.2.1.2   Mac Id assignment

TP/AP/ACF/MA/CA-000	Reference: TS 101 761-2 [1], clause 5.1.1.2 Initial condition: MT_disassociated_from_AP. Check, that: after receiving the RLC_MAC_ID_ASSIGN message the IUT replies with a RLC_MAC_ID_ASSIGN_ACK message containing the assigned Mac Id.

5.2.1.3   Link capability

TP/AP/ACF/LC/CA-000	Reference: TS 101 761-2 [1], clause 5.1.1.3 Initial condition: MAC_ID_Assigned. Check, that: after receiving the RLC_LINK_CAPABILITY message the IUT replies with a RLC_LINK_CAPABILITY_ACK message containing a set of selected parameters.

5.2.1.4   Encryption

TP/AP/ACF/EN/CA-000	Reference: TS 101 761-2 [1], clause 5.1.1.4 Initial condition: Link_Agreed. Check, that: after receiving the RLC_KEY_EXCHANGE_MT_1 message and the RLC_KEY_EXCHANGE_MT_2 message, the IUT replies to the LT with a RLC_KEY_EXCHANGE_AP_1 message and a RLC_KEY_EXCHANGE_AP_2 message.

5.2.1.5   Authentication

TP/AP/ACF/AU/CA-000	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. For IUT supporting IEEE MT authentication. Check, that: for IEEE MT authentication, after receiving the RLC_AUTHENTICATION (more 0) message, the IUT replies to the LT with a RLC_AUTHENTICATION_MT message with the correct MT challenge value.
TP/AP/ACF/AU/CA-001	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. For IUT supporting extended IEEE MT authentication. Check, that: for extended IEEE MT authentication, after receiving the RLC_AUTHENTICATION (more 0) message, the IUT replies to the LT with a RLC_AUTHENTICATION_MT message with the correct MT challenge value.

TP/AP/ACF/AU/CA-002	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. For IUT supporting Net_Acc_Id MT authentication. Check, that: for Net_Acc_Id MT authentication with MT auth id up to 46 octets, after receiving the RLC_AUTHENTICATION (more 0) message, the IUT replies to the LT with a RLC_AUTHENTICATION_MT message with the correct MT challenge value.
TP/AP/ACF/AU/CA-003	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. For IUT supporting Net_Acc_Id MT authentication. Check, that: for Net_Acc_Id MT authentication with MT auth id longer than 46 octets, after receiving the RLC_AUTHENTICATION (more 1) message and the RLC_AUTHENTICATION (more 0) message, the IUT replies to the LT with a RLC_AUTHENTICATION_MT message with the correct MT challenge value.
TP/AP/ACF/AU/CA-004	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. For IUT supporting Compressed authentication. Check, that: for compressed authentication, after receiving the RLC_AUTHENTICATION (more 0) message, the IUT replies to the LT with a RLC_AUTHENTICATION_MT message with the correct MT challenge value.
TP/AP/ACF/AU/CA-005	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. For IUT supporting Generic authentication. Check, that: for Generic authentication with MT auth id up to 46 octets, after receiving the RLC_AUTHENTICATION (more 0) message, the IUT replies to the LT with a RLC_AUTHENTICATION_MT message with the correct MT challenge value.
TP/AP/ACF/AU/CA-006	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. For IUT supporting Generic authentication. Check, that: for Generic authentication with MT auth id longer than 46 octets, after receiving the RLC_AUTHENTICATION (more 1) message and the RLC_AUTHENTICATION (more 0) message, the IUT replies to the LT with a RLC_AUTHENTICATION_MT message with the correct MT challenge value.
TP/AP/ACF/AU/CA-007	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. For IUT supporting X509 Cert. MT authentication. Check, that: for X509 Cert. MT authentication with MT auth id up to 46 octets, after receiving the RLC_AUTHENTICATION (more 0) message, the IUT replies to the LT with a RLC_AUTHENTICATION_MT message with the correct MT challenge value.
TP/AP/ACF/AU/CA-008	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. For IUT supporting X509 Cert. MT authentication. Check, that: for X509 Cert. MT authentication with MT auth id longer than 46 octets, after receiving the RLC_AUTHENTICATION (more 1) message and the RLC_AUTHENTICATION (more 0) message, the IUT replies to the LT with a RLC_AUTHENTICATION_MT message with the correct MT challenge value.
TP/AP/ACF/AU/CA-009	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: MT authenticated. For IUT supporting Pre Shared AP authentication. Check, that: for Pre Shared AP authentication after receiving the RLC_AUTHENTICATION_AP_1 message with the correct AP challenge value, the IUT replies to the LT with a RLC_AUTHENTICATION_ACK_1 message with the correct response value.
TP/AP/ACF/AU/CA-010	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: MT authenticated. For IUT supporting RSH_Signature_64 AP authentication. Check, that: after receiving the RLC_AUTHENTICATION_AP_1 and RLC_AUTHENTICATION_AP_2 messages containing together the correct AP challenge value, the IUT replies to the LT with RLC_AUTHENTICATION_ACK_1 and RLC_AUTHENTICATION_ACK_2 messages with the correct response value.
TP/AP/ACF/AU/CA-011	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: MT authenticated. For IUT supporting RSH_Signature_96 AP authentication. Check, that: after receiving the RLC_AUTHENTICATION_AP_1, RLC_AUTHENTICATION_AP_2 and RLC_AUTHENTICATION_AP_3 messages containing together the correct AP challenge value, the IUT replies to the LT with RLC_AUTHENTICATION_ACK_1 and RLC_AUTHENTICATION_ACK_2 messages with the correct response value.

TP/AP/ACF/AU/CA-012	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: MT authenticated. For IUT supporting RSH_Signature_128 AP authentication. Check, that: after receiving the RLC_AUTHENTICATION_AP_1, RLC_AUTHENTICATION_AP_2 and RLC_AUTHENTICATION_AP_3 messages containing together the correct AP challenge value, the IUT replies to the LT with RLC_AUTHENTICATION_ACK_1, RLC_AUTHENTICATION_ACK_2 and RLC_AUTHENTICATION_ACK_3 messages with the correct response value.

5.2.1.6 Common Key distribution

TP/AP/ACF/CK/CA-000	Reference: TS 101 761-2 [1], clause 5.1.1.6 Initial condition: Link_Agreed_or_Encryption_active_or_Authenticated. Only for IUT that support the Direct Mode procedures. Check, that: immediately after termination of either the link capability process or the encryption process or the authentication process, the IUT initiates the common key distribution procedure by sending a RLC_DM_COMMON_KEY_DISTR message to the LT.

5.2.1.7 Information transfer

TP/AP/ACF/IT/CA-000	Reference: TS 101 761-2 [1], clause 5.1.1.7 Initial condition: Link_Agreed_or_Encryption_active_or_Authenticated. Check, that: after receiving the RLC_INFO message, the IUT replies to the LT with a RLC_INFO_ACK message and considers the MT (LT) as MT_Associated_to_AP.

5.2.1.8 Multicast

TP/AP/ACF/MT/CA-000	Reference: TS 101 761-2 [1], clause 5.1.4 Initial condition: MT_Associated_to_AP and MT has made connection setup for unicast traffic. Check, that: after receiving the RLC_GROUP_JOIN message, the IUT replies to the LT with a RLC_GROUP_JOIN_ACK message.
TP/AP/ACF/MT/CA-001	Reference: TS 101 761-2 [1], clause 5.1.5 Initial condition: MT_Associated_to_AP and MT has made connection setup for unicast traffic. Check, that: after receiving the RLC_CL_BROADCAST_JOIN message, the IUT replies to the LT with a RLC_CL_BROADCAST_JOIN_ACK message.
TP/AP/ACF/MT/CA-002	Reference: TS 101 761-2 [1], clause 5.1.4 Initial condition: MT_Associated_to_AP and MT has joined a group. Check, that: after receiving the RLC_GROUP_LEAVE message, the IUT replies to the LT with a RLC_GROUP_LEAVE_ACK message.
TP/AP/ACF/MT/CA-003	Reference: TS 101 761-2 [1], clause 5.1.5 Initial condition: MT_Associated_to_AP and MT has joined a group. Check, that: after receiving the RLC_ CL_BROADCAST_LEAVE message corresponding to the CL_BROADCAST group, the IUT replies to the LT with the relevant RLC_CL_BROADCAST_LEAVE_ACK message.

5.2.1.9   Disassociation

TP/AP/ACF/DI/CA-000	Reference: TS 101 761-2 [1], clause 5.1.3 Initial condition: MT_Associated_to_AP. Only for AP that implement disassociation process at power off. Stimulus: AP is powered off. Check, that: the IUT initiates the disassociation process by sending a RLC_DISASSOCIATION message during power off procedure.
TP/AP/ACF/DI/CA-001	Reference: TS 101 761-2 [1], clause 5.1.3 Initial condition: MT_Associated_to_AP. Check, that: after receiving a RLC_DISASSOCIATION message, the IUT responds with a RLC_DISASSOCIATION_ACK and considers the MT (LT) as MT_Disassociated_from_AP.

5.2.1.10   Key refresh

TP/AP/ACF/KR/CA-000	Reference: TS 101 761-2 [1], clause 5.1.2.2 Initial condition: LT is MT_Associated_to_AP, encryption is allowed and started. Check, that: the IUT, periodically sends the RLC_UNICAST_KEY_REFRESH message, to refresh the unicast key.
TP/AP/ACF/KR/CA-001	Reference: TS 101 761-2 [1], clause 5.1.2.3.3 Initial condition: LT is MT_Associated_to_AP, LT has joined a group, and encryption is allowed and started. Check, that: the IUT, periodically sends the RLC_COMMON_KEY_REFRESH message, to refresh the common key.
TP/AP/ACF/KR/CA-002	Reference: TS 101 761-2 [1], clause 5.1.2.3.3 Initial condition: LT is MT_Associated_to_AP, LT has joined a group, and encryption is allowed and started. Check, that: the IUT, having sent the RLC_COMMON_KEY_REFRESH message, to refresh the common key, after receiving the acknowledgement from all associated MTs, sends the RLC_COMMON_KEY_ACTIVATE to start use of the new derived common key.

5.2.1.11   Association rejection

TP/AP/ACF/AR/CA-000	Reference: TS 101 761-2 [1], clause 5.1.6 Initial condition: MT_disassociated_from_AP. Check, that: after receiving the RLC_MAC_ID_ASSIGN message and when the IUT does not accept the request, it replies with a relevant RLC_MAC_ID_ASSIGN_NACK message.
TP/AP/ACF/AR/CA-001	Reference: TS 101 761-2 [1], clause 5.1.6 Initial condition: MAC_ID_Assigned. Check, that: after receiving the RLC_MAC_ID_ASSIGN message for a MT that already have an assigned MAC_ID, the IUT initiates the disassociation process by sending a RLC_DISASSOCIATION message.

5.2.1.12   Unsupported messages

TP/AP/ACF/UM/CA-000	Reference: TS 101 761-2 [1], clause 7 Initial condition: MAC_ID_Assigned. Check, that: after receiving an unsupported ACF message (40 ≤ pdu type ≥ 63), the IUT replies by sending a relevant RLC_NO_SUPPORT message.

5.2.1.13　　Timers and repetitions of messages

TP/AP/ACF/TI-000	Reference: TS 101 761-2 [1], clause 6 Initial condition: MAC_ID_Assigned. Check, that: for an ACF procedure initiated by the IUT and when no reply was received, the IUT re-transmits the same message.
TP/AP/ACF/TI-001	Reference: TS 101 761-2 [1], clause 6 Initial condition: MAC_ID_Assigned. Check, that: for an ACF procedure initiated by the IUT and when each time no reply was received, the IUT re-transmits the same message 4 times and stops the initiated procedure.
TP/AP/ACF/TI-002	Reference: TS 101 761-2 [1], clause 6 Initial condition: MAC_ID_Assigned. Check, that: for an ACF procedure initiated by the LT that uses either a T_medium timer or T_long timer, the IUT replies with a relevant RLC_PROCEEDING message as an acknowledgement for the received message.

5.2.2　　Radio resource control

5.2.2.1　　Dynamic frequency selection

5.2.2.1.1　　Requesting

TP/AP/RRC/RQ/CA-000	Reference: TS 101 761-2 [1], clause 5.2.2.3.1 Initial condition: Active Mode. Check, that: when the IUT wishes to make measurements it sends a relevant RLC_DFS_AP_ABSENCE message to all active MTs.
TP/AP/RRC/RQ/CA-001	Reference: TS 101 761-2 [1], clause 5.2.2.3.1 Initial condition: Active Mode. Check, that: when the IUT wishes to make measurements and the sleeping time of an MT is near to be elapsed, it waits the MT_ALIVE process before sending a relevant RLC_DFS_AP_ABSENCE message to all active MTs.
TP/AP/RRC/RQ/CA-002	Reference: TS 101 761-2 [1], clause 5.2.2.3.1 Initial condition: Active Mode. Check, that: when the IUT wishes to make measurements and the remaining sleeping time of an MT is longer than the needed time for measurement, it sends immediately the relevant RLC_DFS_AP_ABSENCE message to all active MTs.
TP/AP/RRC/RQ/CA-003	Reference: TS 101 761-2 [1], clause 5.2.2.3.2 Initial condition: Active Mode. Check, that: when the IUT wishes to request the LT to measure and report the complete measurements, it sends a relevant RLC_DFS_MEASUREMENT_COMPLETE_REQUEST message.
TP/AP/RRC/RQ/CA-004	Reference: TS 101 761-2 [1], clause 5.2.2.3.2 Initial condition: Active Mode. Check, that: when the IUT wishes to request the LT to measure and report the percentiles measurements, it sends a relevant RLC_DFS_MEASUREMENT_PERCENTILES_REQUEST message.
TP/AP/RRC/RQ/CA-005	Reference: TS 101 761-2 [1], clause 5.2.2.3.2 Initial condition: Active Mode. Check, that: when the IUT wishes to request the LT to measure and report the short measurements, it sends a relevant RLC_DFS_MEASUREMENT_SHORT_REQUEST message.
TP/AP/RRC/RQ/CA-006	Reference: TS 101 761-2 [1], clause 5.2.2.3.2 Initial condition: Active Mode. Check, that: when the IUT wishes to change frequency, it sends a relevant RLC_CHANGE_FREQUENCY message.
TP/AP/RRC/RQ/CA-007	Reference: TS 101 761-2 [1], clause 5.2.2.3.1 Initial condition: Active_Mode. Check, that: after receiving a RLC_DFS_MT_INIT_REPORT_REQUEST message, the IUT acknowledges by sending a relevant RLC_DFS_MT_INIT_REPORT_ACK message.

5.2.2.2   Handover

5.2.2.2.1   Sector Handover

TP/AP/RRC/SH/CA-000	Reference: TS 101 761-2 [1], clause 5.2.1.1 Initial condition: LT is MT_Associated_to_AP. Check, that: after receiving a sector handover request (RLC_SECTOR_HANDOVER_REQUEST message), the IUT sends an acknowledgement via the new sector (RLC_SECTOR_HANDOVER_ACK message).

5.2.2.2.2   Radio Handover

TP/AP/RRC/RH/CA-000	Reference: TS 101 761-2 [1], clause 5.2.1.2 Initial condition: MT_Associated_to_AP. Check, that: after receiving a radio handover request (RLC_HANDOVER_REQUEST message) and if all relevant information is available, the IUT assigns a new MAC_ID to the LT (MT) by sending RLC_RADIO_HANDOVER_COMPLETE message.

5.2.2.2.3   Network Handover

TP/AP/RRC/NH/CA-000	Reference: TS 101 761-2 [1], clause 5.2.1.3 Initial condition: MT_Associated_to_AP. Check, that: when network support is available, the IUT sends from time to time a RLC_HO_INFO_DISTRIBUTION message for updating the network token.
TP/AP/RRC/NH/CA-001	Reference: TS 101 761-2 [1], clause 5.2.1.6 Initial condition: MT_Associated_to_AP. Check, that: when the IUT detects the need for handover, it sends a RLC_FORCE_HANDOVER message to the LT.
TP/AP/RRC/NH/CA-002	Reference: TS 101 761-2 [1], clause 5.2.1.3 Initial condition: MT_Associated_to_AP. Check, that: after receiving a handover request (RLC_HANDOVER_REQUEST message) and if all relevant information are not available, the IUT initiates the network handover process by sending RLC_HANDOVER_ASSOCIATION message.
TP/AP/RRC/NH/CA-003	Reference: TS 101 761-2 [1], clause 5.2.1.3 Initial condition: MT_Associated_to_AP. Network handover process is pending. Check, that: after receiving a RLC_LINK_CAPABILITY message, the IUT completes the link capability process by sending RLC_HO_LINK_CAPABILITY_ACK message.
TP/AP/RRC/NH/CA-004	Reference: TS 101 761-2 [1], clause 5.2.1.3 Initial condition: MT_Associated_to_AP. Network handover process is pending. Check, that: after receiving the RLC_NW_SIGNALLING_HANDOVER message, the IUT terminates the NW signalling process by sending a RLC_NW_SIGNALLING_HANDOVER_ACK message to the LT.
TP/AP/RRC/NH/CA-005	Reference: TS 101 761-2 [1], clause 5.2.1.3 Initial condition: MT_Associated_to_AP. Network handover process is pending. Check, that: after receiving a RLC_INFO message, the IUT completes the exchange of higher layer information process by sending RLC_INFO_ACK message.
TP/AP/RRC/NH/CA-006	Reference: TS 101 761-2 [1], clause 5.2.1.3 Initial condition: MT_Associated_to_AP. Network handover process is pending. Check, that: after re-establishment of all previously existing DLC user connections, the IUT terminates the network handover process by sending a RLC_NETWORK_HANDOVER_COMPLETE message to the LT.

5.2.2.2.4   Handover Rejection

TP/AP/RRC/HR/CA-000	Reference: TS 101 761-2 [1], clause 5.2.1.5 Initial condition: MT_Associated_to_AP. Check, that: after receiving the RLC_HANDOVER_REQUEST message and when the IUT does not accept the request, it either replies with a relevant RLC_HANDOVER_REQUEST_NACK message or initiates the disassociation process by sending a RLC_DISASSOCIATION message.

5.2.2.3 Power saving

5.2.2.3.1 Power saving - Sleep

TP/AP/RRC/SL/CA-000	Reference: TS 101 761-2 [1], clause 5.2.5 Initial condition: Active_Mode. Check, that: after receiving a RLC_SLEEP_REQUEST message, the IUT acknowledges by sending a relevant RLC_SLEEP_ACK message.

5.2.2.3.2 Power saving - Alive

5.2.2.3.2.1 Mobile originated

TP/AP/RRC/AL/CA-000	Reference: TS 101 761-2 [1], clause 5.2.4 Initial condition: Active_Mode. Check, that: after receiving a RLC_MT_ALIVE message, the IUT acknowledges by sending a relevant RLC_MT_ALIVE_ ACK message.

5.2.2.3.2.2 Mobile terminated

TP/AP/RRC/AL/CA-001	Reference: TS 101 761-2 [1], clause 5.2.4 Initial condition: Active_Mode. Check, that: the IUT sends a relevant RLC_MT_ALIVE_REQUEST message, when a long period time has elapsed without transmission from the MT.

5.2.2.3.3 Power saving - Absence

TP/AP/RRC/AB/CA-000	Reference: TS 101 761-2 [1], clause 5.2.4.1 Initial condition: Active_Mode. Check, that: after receiving a RLC_ABSENCE_NOTIFY message specifying the duration of the MT absence, the IUT acknowledges it by sending a relevant RLC_ABSENCE_ACK message.
TP/AP/RRC/AB/CA-001	Reference: TS 101 761-2 [1], clause 5.2.4.1 Initial condition: Active_Mode. Check, that: after receiving a RLC_MT_ALIVE message indicating the come back of an absent MT, the IUT acknowledges by sending a relevant RLC_MT_ALIVE_ACK message.
TP/AP/RRC/AB/CA-002	Reference: TS 101 761-2 [1], clause 5.2.4.1 Initial condition: Active_Mode. Check, that: when the duration time specified in the RLC_ABSENCE_NOTIFY sent by a MT has elapsed and no RLC_MT_ALIVE message was received from this MT, the IUT reacts by sending a relevant RLC_MT_ALIVE message to determine the presence of the MT.

5.2.2.4 Unsupported messages

TP/AP/RRC/UM/CA-000	Reference: TS 101 761-2 [1], clause 7 Initial condition: MT_Associated_to_AP. Check, that: after receiving an unsupported RRC message (100 ≤ pdu type ≥ 127), the IUT replies by sending a relevant RLC_NO_SUPPORT message.

5.2.2.5 Timers and repetitions of messages

TP/AP/RRC/TI-000	Reference: TS 101 761-2 [1], clause 6 Initial condition: MT_Associated_to_AP. Check, that: for an RRC procedure initiated by the IUT and when no reply was received, the IUT re-transmits the same message.
TP/AP/RRC/TI-001	Reference: TS 101 761-2 [1], clause 6 Initial condition: MT_Associated_to_AP. Check, that: for an RRC procedure initiated by the IUT and when each time no reply was received, the IUT re-transmits the same message 4 times and stops the initiated procedure.
TP/AP/RRC/TI-002	Reference: TS 101 761-2 [1], clause 6 Initial condition: MT_Associated_to_AP. Check, that: for an RRC procedure initiated by the LT that uses either a T_medium timer or T_long timer, the IUT replies with a relevant RLC_PROCEEDING message as an acknowledgement for the received message.

5.2.3 DLC user connection

5.2.3.1 Centralized mode

5.2.3.1.1 Centralized mode - Set-up

5.2.3.1.1.1 Mobile originated

TP/AP/DUC/CS/CA-000	Reference: TS 101 761-2 [1], clause 5.3.1.2 Initial condition: MT_Associated_to_AP. Check, that: after receiving the RLC_SETUP message, the IUT replies to the LT with a RLC_CONNECT message.
TP/AP/DUC/CS/CA-001	Reference: TS 101 761-2 [1], clause 5.3.1.2 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_CONNECT message. Check, that: after receiving the RLC_CONNECT_ACK message, the IUT considers the DLC user connection as established.

5.2.3.1.1.2 Mobile terminated

TP/AP/DUC/CS/CA-002	Reference: TS 101 761-2 [1], clause 5.3.1.1 Initial condition: MT_Associated_to_AP. Check, that: when the IUT wishes to establish a DLC user connection, it sends a relevant RLC_SETUP message.
TP/AP/DUC/CS/CA-003	Reference: TS 101 761-2 [1], clause 5.3.1.1 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_SETUP message. Check, that: after receiving the RLC_CONNECT message, the IUT replies to the LT with a RLC_CONNECT_ACK message and considers the DLC user connection as established.

5.2.3.1.2 Centralized mode - Release

5.2.3.1.2.1 Mobile originated

TP/AP/DUC/CR/CA-000	Reference: TS 101 761-2 [1], clause 5.3.2.2 Initial condition: DUC_established. Check, that: after receiving the RLC_RELEASE message, the IUT replies to the LT with a RLC_RELEASE_ACK message and considers the DLC user connection as released.

5.2.3.1.2.2   Mobile terminated

TP/AP/DUC/CR/CA-001	Reference: TS 101 761-2 [1], clause 5.3.2.1 Initial condition: DUC_established. Check, that: when the IUT wishes to release a DLC user connection, it sends a relevant RLC_RELEASE message.

5.2.3.1.3   Centralized mode - Modify

5.2.3.1.3.1   Mobile originated

TP/AP/DUC/CM/CA-000	Reference: TS 101 761-2 [1], clause 5.3.3.2 Initial condition: DUC_established. Check, that: after receiving the RLC_MODIFY_REQ message, the IUT replies to the LT with a RLC_MODIFY message.
TP/AP/DUC/CM/CA-001	Reference: TS 101 761-2 [1], clause 5.3.3.2 Initial condition: DUC_established. IUT has sent a RLC_MODIFY message. Check, that: after receiving the RLC_MODIFY_ACK message, the IUT considers the DLC user connection as modified.

5.2.3.1.3.2   Mobile terminated

TP/AP/DUC/CM/CA-002	Reference: TS 101 761-2 [1], clause 5.3.3.1 Initial condition: DUC_established. Check, that: when the IUT wishes to modify a DLC user connection, it sends a relevant RLC_MODIFY_REQ message.
TP/AP/DUC/CM/CA-003	Reference: TS 101 761-2 [1], clause 5.3.3.1 Initial condition: DUC_established. IUT has sent a RLC_MODIFY_REQ message. Check, that: after receiving the RLC_MODIFY message, the IUT replies to the LT with a RLC_MODIFY_ACK message and considers the DLC user connection as modified.

5.2.3.1.4   Centralized mode - Reset

5.2.3.1.4.1   Mobile originated

TP/AP/DUC/CT/CA-000	Reference: TS 101 761-2 [1], clause 5.3.4.2 Initial condition: DUC_established. Check, that: after receiving the RLC_RESET message, the IUT replies to the LT with a RLC_RESET_ACK message and considers the DLC user connection as established and restarted.

5.2.3.1.4.2   Mobile terminated

TP/AP/DUC/CT/CA-001	Reference: TS 101 761-2 [1], clause 5.3.4.1 Initial condition: DUC_established. Check, that: when the IUT wishes to reset a DLC user connection, it sends a relevant RLC_RESET message.

5.2.3.2   Direct Mode

5.2.3.2.1   Direct Mode - Set-up

5.2.3.2.1.1   Mobile originated

TP/AP/DUC/DS/CA-000	Reference: TS 101 761-2 [1], clause 5.3.7.2 Initial condition: MT_Associated_to_AP. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_SETUP message from MT1, the IUT replies to the LT with a RLC_DM_CONNECT message.
TP/AP/DUC/DS/CA-001	Reference: TS 101 761-2 [1], clause 5.3.7.2 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_CONNECT message to MT1. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT_ACK message from the MT1, the IUT sends a relevant RLC_DM_SETUP message to the MT2.
TP/AP/DUC/DS/CA-002	Reference: TS 101 761-2 [1], clause 5.3.7.2 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_SETUP message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT message from the MT2, the IUT replies to the LT with a RLC_DM_CONNECT_ACK message and sends a relevant RLC_DM_CONNECT_COMPLETE message to MT1.
TP/AP/DUC/DS/CA-003	Reference: TS 101 761-2 [1], clause 5.3.7.2 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_CONNECT_COMPLETE message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT_COMPLETE_ACK message from the MT1, the IUT sends a relevant RLC_DM_CONNECT_COMPLETE message to MT2.
TP/AP/DUC/DS/CA-004	Reference: TS 101 761-2 [1], clause 5.3.7.2 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_CONNECT_COMPLETE message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after completion of the DM setup procedure, the U-plane is established between the MT1 and the MT2.

5.2.3.2.1.2   Mobile terminated

TP/AP/DUC/DS/CA-005	Reference: TS 101 761-2 [1], clause 5.3.7.1 Initial condition: MT_Associated_to_AP. Only for IUT that support the Direct Mode procedures. Check, that: when the IUT wishes to establish a DM DLC user connection, it sends a relevant RLC_DM_SETUP message to the MT1.
TP/AP/DUC/DS/CA-006	Reference: TS 101 761-2 [1], clause 5.3.7.1 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_SETUP message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT message from the MT1, the IUT replies to the LT with a RLC_DM_CONNECT_ACK message and sends a relevant RLC_DM_SETUP message to the MT2.
TP/AP/DUC/DS/CA-007	Reference: TS 101 761-2 [1], clause 5.3.7.1 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_SETUP message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT message from the MT2, the IUT replies to the LT with a RLC_DM_CONNECT_ACK message and sends a relevant RLC_DM_CONNECT_COMPLETE message to MT1.
TP/AP/DUC/DS/CA-008	Reference: TS 101 761-2 [1], clause 5.3.7.1 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_CONNECT_COMPLETE message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT_COMPLETE_ACK message from the MT1, the IUT sends a relevant RLC_DM_CONNECT_COMPLETE message to MT2.
TP/AP/DUC/DS/CA-009	Reference: TS 101 761-2 [1], clause 5.3.7.1 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_CONNECT_COMPLETE message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after completion of the DM setup procedure, the U-plane is established between the MT1 and the MT2.

5.2.3.2.2   Direct Mode - Release

5.2.3.2.2.1   Mobile originated

TP/AP/DUC/DR/CA-000	Reference: TS 101 761-2 [1], clause 5.3.8.2 Initial condition: DM DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_RELEASE message from the MT1, the IUT sends a relevant RLC_DM_RELEASE message to MT2.
TP/AP/DUC/DR/CA-001	Reference: TS 101 761-2 [1], clause 5.3.8.2 Initial condition: DM DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RELEASE message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_RELEASE_ACK message from the MT2, the IUT sends a relevant RLC_DM_RELEASE_ACK message to MT1.
TP/AP/DUC/DR/CA-002	Reference: TS 101 761-2 [1], clause 5.3.8.2 Initial condition: DM DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RELEASE_ACK message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after completion of the DM release procedure, the U-plane is released between the MT1 and the MT2.

5.2.3.2.2.2   Mobile terminated

TP/AP/DUC/DR/CA-003	Reference: TS 101 761-2 [1], clause 5.3.8.1 Initial condition: DM DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: when the IUT wishes to release a DM DLC user connection, it sends a relevant RLC_DM_RELEASE message to the MT1.
TP/AP/DUC/DR/CA-004	Reference: TS 101 761-2 [1], clause 5.3.8.1 Initial condition: DM DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RELEASE message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_RELEASE_ACK message from the MT1, the IUT sends a relevant RLC_DM_RELEASE message to MT2.
TP/AP/DUC/DR/CA-005	Reference: TS 101 761-2 [1], clause 5.3.8.1 Initial condition: DM DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RELEASE message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_RELEASE_ACK message from the MT2, the IUT considers the DM DLC user connection as released.

5.2.3.2.3   Direct Mode - Modify

5.2.3.2.3.1   Mobile originated

TP/AP/DUC/DM/CA-000	Reference: TS 101 761-2 [1], clause 5.3.9.2 Initial condition: DM DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY_REQ message from the MT1, the IUT replies to the LT with a RLC_DM_MODIFY message.
TP/AP/DUC/DM/CA-001	Reference: TS 101 761-2 [1], clause 5.3.9.2 Initial condition: DM DUC_established. IUT has sent a RLC_DM_MODIFY message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY_ACK message, the IUT sends a relevant RLC_DM_MODIFY_REQ message to MT2.
TP/AP/DUC/DM/CA-002	Reference: TS 101 761-2 [1], clause 5.3.9.2 Initial condition: DUC_established. IUT has sent a RLC_DM_MODIFY_REQ message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY message from the MT2, the IUT replies to the LT with a RLC_DM_MODIFY_ACK message and sends a relevant RLC_DM_MODIFY_COMPLETE message to MT1.
TP/AP/DUC/DM/CA-003	Reference: TS 101 761-2 [1], clause 5.3.9.2 Initial condition: DUC_established. IUT has sent a RLC_DM_MODIFY_COMPLETE message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY_COMPLETE_ACK message from the MT1, the IUT sends a relevant RLC_DM_MODIFY_COMPLETE message to MT2.
TP/AP/DUC/DM/CA-004	Reference: TS 101 761-2 [1], clause 5.3.9.2 Initial condition: DUC_established. IUT has sent a RLC_DM_MODIFY_COMPLETE message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY_COMPLETE_ACK message from the MT2, the IUT considers the DM DLC user connection as modified.

5.2.3.2.3.2 Mobile terminated

TP/AP/DUC/DM/CA-005	Reference: TS 101 761-2 [1], clause 5.3.9.1 Initial condition: DM DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: when the IUT wishes to modify a DM DLC user connection, it sends a relevant RLC_DM_MODIFY_REQ message to the MT1.
TP/AP/DUC/DM/CA-006	Reference: TS 101 761-2 [1], clause 5.3.9.1 Initial condition: DUC_established. IUT has sent a RLC_DM_MODIFY_REQ message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY message from the MT1, the IUT replies to the LT with a RLC_DM_MODIFY_ACK message and sends a relevant RLC_DM_MODIFY_REQ message to MT2.
TP/AP/DUC/DM/CA-007	Reference: TS 101 761-2 [1], clause 5.3.9.1 Initial condition: DUC_established. IUT has sent a RLC_DM_MODIFY_REQ message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY message from the MT2, the IUT replies to the LT with a RLC_DM_MODIFY_ACK message and sends a relevant RLC_DM_MODIFY_COMPLETE message to MT1.
TP/AP/DUC/DM/CA-008	Reference: TS 101 761-2 [1], clause 5.3.9.1 Initial condition: DUC_established. IUT has sent a RLC_DM_MODIFY_COMPLETE message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY_COMPLETE_ACK message from the MT1, the IUT sends a relevant RLC_DM_MODIFY_COMPLETE message to MT2.
TP/AP/DUC/DM/CA-009	Reference: TS 101 761-2 [1], clause 5.3.9.1 Initial condition: DUC_established. IUT has sent a RLC_DM_MODIFY_COMPLETE message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY_COMPLETE_ACK message from the MT2, the IUT considers the DM DLC user connection as modified.

5.2.3.2.4 Relay Set-up

5.2.3.2.4.1 Mobile originated

TP/AP/DUC/RS/CA-000	Reference: TS 101 761-2 [1], clause 5.3.7.3 Initial condition: MT_Associated_to_AP. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_RELAY_SETUP message from MT1, it sends a relevant RLC_DM_SETUP message to the MT1.
TP/AP/DUC/RS/CA-001	Reference: TS 101 761-2 [1], clauses 5.3.7.3, 5.3.7.1 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_SETUP message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT message from the MT1, the IUT replies to the LT with a RLC_DM_CONNECT_ACK message and sends a relevant RLC_DM_SETUP message to the MT2.
TP/AP/DUC/RS/CA-002	Reference: TS 101 761-2 [1], clauses 5.3.7.3, 5.3.7.1 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_SETUP message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT message from the MT2, the IUT replies to the LT with a RLC_DM_CONNECT_ACK message and sends a relevant RLC_DM_CONNECT_COMPLETE message to MT1.
TP/AP/DUC/RS/CA-003	Reference: TS 101 761-2 [1], clauses 5.3.7.3, 5.3.7.1 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_CONNECT_COMPLETE message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT_COMPLETE_ACK message from the MT1, the IUT sends a relevant RLC_DM_CONNECT_COMPLETE message to MT2.
TP/AP/DUC/RS/CA-004	Reference: TS 101 761-2 [1], clause 5.3.7.3 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_CONNECT_COMPLETE message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT_COMPLETE_ACK message from the MT2, the IUT sends a relevant RLC_RELAY_SETUP_ACK message to MT1.
TP/AP/DUC/RS/CA-005	Reference: TS 101 761-2 [1], clause 5.3.7.3 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_RELAY_SETUP_ACK message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after completion of the DM relay setup procedure, two U-planes are established. One is established between the MT1 and AP/CC and another one is established between the MT2 and AP/CC.

5.2.3.2.5 Relay Release

5.2.3.2.5.1 Mobile originated

TP/AP/DUC/RR/CA-000	Reference: TS 101 761-2 [1], clause 5.3.8.3 Initial condition: DM relay DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_RELAY_RELEASE message from the MT1, the IUT sends a relevant RLC_DM_RELEASE message to MT1.
TP/AP/DUC/RR/CA-001	Reference: TS 101 761-2 [1], clauses 5.3.8.3, 5.3.8.1 Initial condition: DM DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RELEASE message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_RELEASE_ACK message from the MT1, the IUT sends a relevant RLC_DM_RELEASE message to MT2.
TP/AP/DUC/RR/CA-002	Reference: TS 101 761-2 [1], clauses 5.3.8.3, 5.3.8.1 Initial condition: DM DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RELEASE message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_RELEASE_ACK message from the MT2, the IUT sends a relevant RLC_RELAY_RELEASE_ACK message to MT1.
TP/AP/DUC/RR/CA-003	Reference: TS 101 761-2 [1], clauses 5.3.8.3, 5.3.8.1 Initial condition: DM DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RELEASE message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after sending the RLC_RELAY_RELEASE_ACK message to the MT1, the two DM relay DLC user connections are released.

5.2.3.2.6   Relay Modify

5.2.3.2.6.1   Mobile originated

TP/AP/DUC/RM/CA-000	Reference: TS 101 761-2 [1], clause 5.3.9.3 Initial condition: DM relay DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_RELAY_MODIFY message from the MT1, the IUT sends a RLC_DM_MODIFY_REQ message to the MT2.
TP/AP/DUC/RM/CA-001	Reference: TS 101 761-2 [1], clauses 5.3.9.3, 5.3.9.1 Initial condition: DM relay DUC_established. IUT has sent a RLC_DM_MODIFY_REQ message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY message from the MT2, the IUT replies to with a RLC_DM_MODIFY_ACK message and sends a relevant RLC_DM_MODIFY_COMPLETE message.
TP/AP/DUC/RM/CA-002	Reference: TS 101 761-2 [1], clauses 5.3.9.3, 5.3.9.1 Initial condition: DM relay DUC_established. IUT has sent a RLC_DM_MODIFY_COMPLETE message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY_COMPLETE_ACK message from the MT2, the IUT sends a relevant RLC_DM_MODIFY_REQ message to MT1.
TP/AP/DUC/RM/CA-003	Reference: TS 101 761-2 [1], clauses 5.3.9.3, 5.3.9.1 Initial condition: DM relay DUC_established. IUT has sent a RLC_DM_MODIFY_REQ message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY message from the MT1, the IUT replies to with a RLC_DM_MODIFY_ACK message and sends a relevant RLC_DM_MODIFY_COMPLETE message.
TP/AP/DUC/RM/CA-004	Reference: TS 101 761-2 [1], clauses 5.3.9.3, 5.3.9.1 Initial condition: DM relay DUC_established. IUT has sent a RLC_DM_MODIFY_COMPLETE message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY_COMPLETE_ACK message from the MT1, the IUT sends a relevant RLC_RELAY_MODIFY_ACK message to MT1
TP/AP/DUC/RM/CA-005	Reference: TS 101 761-2 [1], clause 5.3.9.3. Initial condition: DM relay DUC_established. IUT has sent a RLC_RELAY_MODIFY_ACK message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after sending the RLC_RELAY_MODIFY_ACK message to the MT1, the IUT considers the two DM relay DLC user connections as modified.

5.2.3.2.7   Direct Mode - Reset

5.2.3.2.7.1   Mobile originated

TP/AP/DUC/DT/CA-000	Reference: TS 101 761-2 [1], clause 5.3.10.2 Initial condition: DM DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_RESET message from the MT1, the IUT sends a relevant RLC_DM_RESET message to MT2
TP/AP/DUC/DT/CA-001	Reference: TS 101 761-2 [1], clause 5.3.10.2 Initial condition: DM DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RESET message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_RESET_ACK message from the MT2, the IUT sends a relevant RLC_DM_RESET_ACK message to MT1.
TP/AP/DUC/DT/CA-002	Reference: TS 101 761-2 [1], clause 5.3.10.2 Initial condition: DM DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RESET_ACK message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after completion of the DM reset procedure, the U-plane is established and restarted between the MT1 and the MT2.

5.2.3.2.7.2   Mobile terminated

TP/AP/DUC/DT/CA-003	Reference: TS 101 761-2 [1], clause 5.3.10.1 Initial condition: DM DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: when the IUT wishes to reset a DM DLC user connection, it sends a relevant RLC_DM_RESET message to MT1.
TP/AP/DUC/DT/CA-004	Reference: TS 101 761-2 [1], clause 5.3.10.1 Initial condition: DM DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RESET message to the MT1. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_RESET_ACK message from the MT1, the IUT sends a relevant RLC_DM_RESET message to MT2.
TP/AP/DUC/DT/CA-005	Reference: TS 101 761-2 [1], clause 5.3.10.1 Initial condition: DM DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RESET message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_RESET_ACK message from the MT2, the IUT considers the DM DLC user connection as established and restarted.

5.2.3.3   Unsupported messages

TP/AP/DUC/UM/CA-000	Reference: TS 101 761-2 [1], clause 7 Initial condition: MT_Associated_to_AP. Check, that: after receiving an unsupported DUC message (160 ≤ pdu type), the IUT replies by sending a relevant RLC_NO_SUPPORT message.

5.2.3.4   Timers and repetitions of messages

TP/AP/DUC/TI-000	Reference: TS 101 761-2 [1], clause 6 Initial condition: MT_Associated_to_AP. Check, that: for a DUC procedure initiated by the IUT and when no reply was received, the IUT re-transmits the same message.
TP/AP/DUC/TI-001	Reference: TS 101 761-2 [1], clause 6 Initial condition: MT_Associated_to_AP. Check, that: for an DUC procedure initiated by the IUT and when each time no reply was received, the IUT re-transmits the same message 4 times and stops the initiated procedure.
TP/AP/DUC/TI-002	Reference: TS 101 761-2 [1], clause 6 Initial condition: MT_Associated_to_AP. Check, that: for an DUC procedure initiated by the LT that uses either a T_medium timer or T_long timer, the IUT replies with a relevant RLC_PROCEEDING message as an acknowledgement for the received message.

5.3   Test purposes for MT

5.3.1   Association control function

5.3.1.1   RBCH Association

TP/MT/ACF/RA/CA-000	Reference: TS 101 761-2 [1], clause 5.1.1.1 Initial condition: MT_disassociated_from_AP. Stimulus: Switch on. Check, that the IUT does not attempt the association process if the Network Operator Id broadcast by the LT (AP) is not contained in its allowed Network Operator Id list.
TP/MT/ACF/RA/CA-001	Reference: TS 101 761-2 [1], clause 5.1.1.1 Initial condition: MT_disassociated_from_AP. Stimulus: Switch on. Check, that the IUT attempts the association process if the Network Operator Id field of the RBCH_ASSOCIATION message, broadcast by the LT (AP), indicate No Network Operator Id provided.
TP/MT/ACF/RA/CA-002	Reference: TS 101 761-2 [1], clause 5.1.1.1 Initial condition: MT_disassociated_from_AP. Stimulus: Switch on. Check, that the IUT attempts the association process if the Network Operator Id broadcast by the LT (AP) is contained in its allowed Network Operator Id list.
TP/MT/ACF/RA/CA-003	Reference: TS 101 761-2 [1], clause 5.1.1.1 Initial condition: MT_disassociated_from_AP. Stimulus: Switch on. Check, that the IUT does not attempt the association process if it cannot find at least one of its proper CL ID that match one of the CL ID broadcast by the LT (AP).
TP/MT/ACF/RA/CA-004	Reference: TS 101 761-2 [1], clause 5.1.1.1 Initial condition: MT_disassociated_from_AP. Stimulus: Switch on. Check, that the IUT attempts the association process if at least one of its proper CL ID matches one of the CL ID broadcast by the LT (AP).
TP/MT/ACF/RA/CA-005	Reference: TS 101 761-2 [1], clause 5.1.1.1 Initial condition: MT_disassociated_from_AP. Stimulus: Switch on. Check, that the IUT, when it has not received the periodically sent RBCH_ASSOCIATION message, requests the information by sending a relevant RLC_RBCH_ASSOCIATION_REQ message.

A configuration primitive is used to initialize the tester with the value of the variables to broadcast: Number of sectors, NET ID, AP ID, AP TX level, AP RX UL level, Version indicator, AP traffic load indicator, Maximum power indicator.

5.3.1.2   Mac Id assignment

TP/MT/ACF/MA/CA-000	Reference: TS 101 761-2 [1], clause 5.1.1.2 Initial condition: Beacon_Received. Check, that the IUT, having received a correct broadcast signalling and to continue the association procedure request a MAC_ID by sending a RLC_MAC_ID_ASSIGN message.

5.3.1.3   Link capability

TP/MT/ACF/LC/CA-000	Reference: TS 101 761-2 [1], clause 5.1.1.3 Initial condition: MAC_ID_Assigned. Check, that: after receiving the MAC_ID the IUT initiates the exchange of link capabilities by sending its own parameters to the LT (RLC_LINK_CAPABILITY message).

5.3.1.4 Encryption

TP/MT/ACF/EN/CA-000	Reference: TS 101 761-2 [1], clause 5.1.1.4 Initial condition: Link_Agreed. Check, that: after receiving the RLC_LINK_CAPABILITY_ACK message indicating the selected encryption procedure, the IUT initiates the encryption process by sending a RLC_KEY_EXCHANGE_MT_1 message and a RLC_KEY_EXCHANGE_MT_2 message to the LT.

5.3.1.5 Authentication

TP/MT/ACF/AU/CA-000	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. Authentication requested. For IUT supporting IEEE MT authentication. Check, that: immediately after termination of the encryption process, the IUT initiates the IEEE MT authentication process by sending a RLC_AUTHENTICATION (more 0) message.
TP/MT/ACF/AU/CA-001	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. Authentication requested. For IUT supporting Extended IEEE MT authentication. Check, that: immediately after termination of the encryption process, the IUT initiates the Extended IEEE MT authentication process by sending a RLC_AUTHENTICATION (more 0) message.
TP/MT/ACF/AU/CA-002	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. Authentication requested. For IUT supporting Net_Acc_Id MT authentication. Check, that: immediately after termination of the encryption process, the IUT initiates the Net_Acc_Id MT authentication with MT auth id up to 46 octets by sending a RLC_AUTHENTICATION (more 0) message.
TP/MT/ACF/AU/CA-003	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. Authentication requested. For IUT supporting Net_Acc_Id MT authentication. Check, that: immediately after termination of the encryption process, the IUT initiates the Net_Acc_Id MT authentication with MT auth id longer than 46 octets by sending a RLC_AUTHENTICATION (more 1) and a RLC_AUTHENTICATION (more 0) messages.
TP/MT/ACF/AU/CA-004	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. Authentication requested. For IUT supporting Compressed authentication. Check, that: immediately after termination of the encryption process, the IUT initiates the Compressed authentication by sending a RLC_AUTHENTICATION (more 0) message.
TP/MT/ACF/AU/CA-005	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. Authentication requested. For IUT supporting Generic authentication. Check, that: immediately after termination of the encryption process, the IUT initiates the Generic authentication with MT auth id up to 46 octets by sending a RLC_AUTHENTICATION (more 0) message.
TP/MT/ACF/AU/CA-006	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. Authentication requested. For IUT supporting Generic authentication. Check, that: immediately after termination of the encryption process, the IUT initiates the Generic authentication with MT auth id longer than 46 octets by sending a RLC_AUTHENTICATION (more 1) and a RLC_AUTHENTICATION (more 0) messages.
TP/MT/ACF/AU/CA-007	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. Authentication requested. For IUT supporting X509 Cert. MT authentication. Check, that: immediately after termination of the encryption process, the IUT initiates the X509 Cert. MT authentication with MT auth id up to 46 octets by sending a RLC_AUTHENTICATION (more 0) message.

TP/MT/ACF/AU/CA-008	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: Encryption_active. Authentication requested. For IUT supporting X509 Cert. MT authentication. Check, that: immediately after termination of the encryption process, the IUT initiates the X509 Cert. MT authentication with MT auth id longer than 46 octets by sending a RLC_AUTHENTICATION (more 1) and a RLC_AUTHENTICATION (more 0) messages.
TP/MT/ACF/AU/CA-009	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: MT authenticated. For IUT supporting Pre Shared AP authentication. Check, that: immediately after termination of the MT authentication process, the IUT initiates the Pre Shared AP authentication process by sending a RLC_AUTHENTICATION_AP_1 message containing the correct AP challenge value.
TP/MT/ACF/AU/CA-010	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: MT authenticated. For IUT supporting RSH_Signature_64 AP authentication. Check, that: immediately after termination of the MT authentication process, the IUT initiates the RSH_Signature_64 AP authentication process by sending RLC_AUTHENTICATION_AP_1 and RLC_AUTHENTICATION_AP_2 messages containing together the correct AP challenge value.
TP/MT/ACF/AU/CA-011	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: MT authenticated. For IUT supporting RSH_Signature_96 AP authentication. Check, that: immediately after termination of the MT authentication process, the IUT initiates the RSH_Signature_96 AP authentication process by sending RLC_AUTHENTICATION_AP_1, RLC_AUTHENTICATION_AP_2 and RLC_AUTHENTICATION_AP_3 messages containing together the correct AP challenge value.
TP/MT/ACF/AU/CA-012	Reference: TS 101 761-2 [1], clause 5.1.1.5 Initial condition: MT authenticated. For IUT supporting RSH_Signature_128 AP authentication. Check, that: immediately after termination of the MT authentication process, the IUT initiates the RSH_Signature_128 AP authentication process by sending RLC_AUTHENTICATION_AP_1, RLC_AUTHENTICATION_AP_2 and RLC_AUTHENTICATION_AP_3 messages containing together the correct AP challenge value.

5.3.1.6   Common Key distribution

TP/MT/ACF/CK/CA-000	Reference: TS 101 761-2 [1], clause 5.1.1.6 Initial condition: Link_Agreed_or_Encryption_active_or_Authenticated. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_COMMON_KEY_DISTR message, the IUT replies to the LT with a RLC_DM_COMMON_KEY_DISTR_ACK message.

5.3.1.7   Information transfer

TP/MT/ACF/IT/CA-000	Reference: TS 101 761-2 [1], clause 5.1.1.7 Initial condition: Link_Agreed_or_Encryption_active_or_Authenticated. Check, that: after termination of the MT_Id obtain process, the IUT initiates the exchange of higher layer information by sending a RLC_INFO message to the LT.

5.3.1.8   Multicast

TP/MT/ACF/MT/CA-000	Reference: TS 101 761-2 [1], clause 5.1.4 Initial condition: MT_Associated_to_AP and MT has made connection setup for unicast traffic. Check, that: when the IUT wishes to join a group, it sends a relevant RLC_GROUP_JOIN message.
TP/MT/ACF/MT/CA-001	Reference: TS 101 761-2 [1], clause 5.1.5 Initial condition: MT_Associated_to_AP and MT has made connection setup for unicast traffic. Check, that: when the IUT wishes to join the CL_BROADCAST group, it sends a relevant RLC_CL_BROADCAST_JOIN message.
TP/MT/ACF/MT/CA-002	Reference: TS 101 761-2 [1], clause 5.1.4 Initial condition: MT_Associated_to_AP and MT has joined a group. Check, that: when the IUT wishes to leave a group, it sends a relevant RLC_GROUP_LEAVE message.
TP/MT/ACF/MT/CA-003	Reference: TS 101 761-2 [1], clause 5.1.5 Initial condition: MT_Associated_to_AP and MT has joined a group. Check, that: when the IUT wishes to leave the CL_BROADCAST group, it sends a relevant RLC_CL_BROADCAST _LEAVE message.

5.3.1.9   Disassociation

TP/MT/ACF/DI/CA-000	Reference: TS 101 761-2 [1], clause 5.1.3 Initial condition: MT_Associated_to_AP. Only for MT that implement disassociation process at power off. Stimulus: MT is powered off. Check, that: the IUT initiates the disassociation process by sending a RLC_DISASSOCIATION message during power off procedure.
TP/MT/ACF/DI/CA-001	Reference: TS 101 761-2 [1], clause 5.1.3 Initial condition: MT_Associated_to_AP. Check, that: after receiving a RLC_DISASSOCIATION message, the IUT responds with a RLC_DISASSOCIATION_ACK and enters in MT_Disassociated_from_AP state.

5.3.1.10   Key refresh

TP/MT/ACF/KR/CA-000	Reference: TS 101 761-2 [1], clause 5.1.2.2 Initial condition: MT_Associated_to_AP, encryption allowed and started. Check, that: after receiving the Unicast key refresh RLC_UNICAST_KEY_REFRESH message, the IUT acknowledges by sending RLC_UNICAST_KEY_REFRESH_ACK and starts using the new derived key.
TP/MT/ACF/KR/CA-001	Reference: TS 101 761-2 [1], clause 5.1.2.3.3 Initial condition: MT_Associated_to_AP, group joined, encryption allowed and started. Check, that: after receiving the multicast common key refresh RLC_COMMON_KEY_REFRESH message, the IUT acknowledges by sending RLC_COMMON_KEY_REFRESH_ACK and, after receiving the RLC_COMMON_KEY_ACTIVATE, starts using the new derived common key.

5.3.1.11   Unsupported messages

TP/MT/ACF/UM/CA-000	Reference: TS 101 761-2 [1], clause 7 Initial condition: MAC_ID_Assigned. Check, that: after receiving an unsupported ACF message (40 ≤ pdu type ≥ 63), the IUT replies by sending a relevant RLC_NO_SUPPORT message.

5.3.1.12   Timers and repetitions of messages

TP/MT/ACF/TI-000	Reference: TS 101 761-2 [1], clause 6 Initial condition: MAC_ID_Assigned. Check, that: for an ACF procedure initiated by the IUT and when no reply was received, the IUT re-transmits the same message.
TP/MT/ACF/TI-001	Reference: TS 101 761-2 [1], clause 6 Initial condition: MAC_ID_Assigned. Check, that: for an ACF procedure initiated by the IUT and when each time no reply was received, the IUT re-transmits the same message 4 times and stops the initiated procedure.
TP/MT/ACF/TI-002	Reference: TS 101 761-2 [1], clause 6 Initial condition: MAC_ID_Assigned. Check, that: for an ACF procedure initiated by the LT that uses either a T_medium timer or T_long timer, the IUT replies with a relevant RLC_PROCEEDING message as an acknowledgement for the received message.

5.3.2   Radio resource control

5.3.2.1   Dynamic frequency selection

5.3.2.1.1   Requesting

TP/MT/RRC/RQ/CA-000	Reference: TS 101 761-2 [1], clause 5.2.2.3.2 Initial condition: Active_Mode. Check, that: when the IUT wishes to transmit its proper measurement to the LT, it sends a relevant RLC_DFS_MT_INIT_REPORT_REQUEST message.

5.3.2.1.2   Reporting

TP/MT/RRC/RP/CA-000	Reference: TS 101 761-2 [1], clause 5.2.2.4 Initial condition: Active Mode. Check, that: the IUT having received a RLC_DFS_MEASUREMENT_COMPLETE_REQUEST message, sends back after measurement a relevant RLC_DFS_REPORT_COMPLETE message.
TP/MT/RRC/RP/CA-001	Reference: TS 101 761-2 [1], clause 5.2.2.4 Initial condition: Active Mode. Check, that: the IUT having received a RLC_DFS_MEASUREMENT_PERCENTILES_REQUEST message, sends back after measurement a relevant RLC_DFS_REPORT_PERCENTILES message.
TP/MT/RRC/RP/CA-002	Reference: TS 101 761-2 [1], clause 5.2.2.4 Initial condition: Active Mode. Check, that: the IUT having received a RLC_DFS_MEASUREMENT_SHORT_REQUEST message, sends back after measurement a relevant RLC_DFS_REPORT_SHORT message.

5.3.2.2   Handover

5.3.2.2.1   Sector Handover

TP/MT/RRC/SH/CA-000	Reference: TS 101 761-2 [1], clause 5.2.1.1 Initial condition: MT_Associated_to_AP. Check, that: the IUT detecting the need for a sector handover, sends a sector handover request via the old sector (RLC_SECTOR_HANDOVER_REQUEST message).
TP/MT/RRC/SH/CA-001	Reference: TS 101 761-2 [1], clause 5.2.1.1 Initial condition: MT_Associated_to_AP. Check, that: after completion of a sector handover (RLC_SECTOR_HANDOVER_ACK message is received), the IUT communicates only via the new sector.

5.3.2.2.2   Radio Handover

TP/MT/RRC/RH/CA-000	Reference: TS 101 761-2 [1], clause 5.2.1.2 Initial condition: MT_Associated_to_AP. Check, that: after receiving a RLC_FORCE_HANDOVER message, the IUT initiates a radio or network handover by sending a RLC_HANDOVER_REQUEST message to the new AP and optionally by sending a RLC_HANDOVER_NOTIFY message to the old AP.
TP/MT/RRC/RH/CA-001	Reference: TS 101 761-2 [1], clause 5.2.1.2 Initial condition: MT_Associated_to_AP. Check, that: when handover is needed and the IUT is still synchronized to the old APT, the IUT notifies the old APT by sending a RLC_HANDOVER_NOTIFY message.
TP/MT/RRC/RH/CA-002	Reference: TS 101 761-2 [1], clause 5.2.1.2 Initial condition: MT_Associated_to_AP. Check, that: when handover is needed and the IUT is synchronized to the new APT, the IUT requests handover to the new APT by sending a RLC_HANDOVER_REQUEST message.
TP/MT/RRC/RH/CA-003	Reference: TS 101 761-2 [1], clause 5.2.1.2 Initial condition: MT_Associated_to_AP. Check, that: after completion of a radio handover (RLC_RADIO_HANDOVER_COMPLETE message is received), the IUT communicates correctly with the LT (new APT).

5.3.2.2.3   Network Handover

TP/MT/RRC/NH/CA-000	Reference: TS 101 761-2 [1], clause 5.2.1.3 Initial condition: MT_Associated_to_AP. Network support available. Check, that: after receiving RLC_HO_INFO_DISTRIBUTION message, the IUT sends back a RLC_HO_INFO_DISTRIBUTION_ACK message and update its network token.
TP/MT/RRC/NH/CA-001	Reference: TS 101 761-2 [1], clause 5.2.1.3 Initial condition: MT_Associated_to_AP. The IUT (MT) has sent a RLC_HANDOVER_REQUEST message. Check, that: after receiving RLC_HANDOVER_ASSOCIATION message, the IUT initiates the exchange of link capabilities by sending its own link parameters to the LT (RLC_LINK_CAPABILITY message).
TP/MT/RRC/NH/CA-002	Reference: TS 101 761-2 [1], clause 5.2.1.3 Initial condition: MT_Associated_to_AP. Network handover process is pending. The IUT (MT) has sent a RLC_LINK_CAPABILITY message. Check, that: after receiving the RLC_HO_LINK_CAPABILITY_ACK message and if network support was available, the IUT initiates the NW signalling process by sending a RLC_NW_SIGNALLING_HANDOVER message to the LT.
TP/MT/RRC/NH/CA-003	Reference: TS 101 761-2 [1], clause 5.2.1.3 Initial condition: MT_Associated_to_AP. Network handover process is pending. The IUT (MT) has sent a RLC_LINK_CAPABILITY message. Check, that: after receiving the RLC_HO_LINK_CAPABILITY_ACK message indicating the selected encryption procedure and network support was not available, the IUT initiates the encryption process by sending a RLC_KEY_EXCHANGE_MT_1 message and a RLC_KEY_EXCHANGE_MT_2 message to the LT.
TP/MT/RRC/NH/CA-004	Reference: TS 101 761-2 [1], clause 5.2.1.3 Initial condition: MT_Associated_to_AP. Network handover process is pending. The IUT (MT) has terminated the NW signalling process or terminated the authentication process by receiving the relevant message. Check, that: after termination of the NW signalling process or termination of the authentication process, the IUT initiates the exchange of higher layer information by sending a RLC_INFO message to the LT.
TP/MT/RRC/NH/CA-005	Reference: TS 101 761-2 [1], clause 5.2.1.3 Initial condition: MT_Associated_to_AP. Network handover process is pending. The IUT (MT) has terminated the higher layer information exchange process by receiving the relevant message (RLC_INFO_ACK). Check, that: after termination of the higher layer information exchange process, the IUT re-establishes a previously existing DLC user connection by sending a RLC_SETUP message to the LT.

TP/MT/RRC/NH/CA-006	Reference: TS 101 761-2 [1], clause 5.2.1.3 Initial condition: MT_Associated_to_AP. Network handover process is pending. The IUT (MT) has terminated the higher layer information exchange process by receiving the relevant message (RLC_INFO_ACK). Check, that: after termination of the higher layer information exchange process, the IUT re-establishes all previously existing DLC user connections by sending all necessary RLC_SETUP messages to the LT.
TP/MT/RRC/NH/CA-007	Reference: TS 101 761-2 [1], clause 5.2.1.3 Initial condition: MT_Associated_to_AP. Check, that: after completion of a network handover (RLC_NETWORK_HANDOVER_COMPLETE message is received), the IUT communicates correctly with the LT (new AP).

5.3.2.3   Power saving

5.3.2.3.1   Power saving - Sleep

TP/MT/RRC/SL/CA-000	Reference: TS 101 761-2 [1], clause 5.2.5 Initial condition: Active_Mode. Check, that: the IUT sends a relevant RLC_SLEEP_REQUEST message, when it wishes to enter low power consumption mode.

5.3.2.3.2   Power saving - Alive

5.3.2.3.2.1   Mobile originated

TP/MT/RRC/AL/CA-000	Reference: TS 101 761-2 [1], clause 5.2.4 Initial condition: Active_Mode. Check, that: the IUT sends a relevant RLC_MT_ALIVE message, when a long period time has elapsed without transmission and it wishes to remain associated.

5.3.2.3.2.2   Mobile terminated

TP/MT/RRC/AL/CA-001	Reference: TS 101 761-2 [1], clause 5.2.4 Initial condition: Active_Mode. Check, that: after receiving a RLC_MT_ALIVE_REQUEST message, the IUT acknowledges by sending a relevant RLC_MT_ALIVE_REQUEST_ACK message.

5.3.2.3.3   Power saving - Absence

TP/MT/RRC/AB/CA-000	Reference: TS 101 761-2 [1], clause 5.2.4.1 Initial condition: Active_Mode. Check, that: when the IUT has nothing to transmit in the up-link stream for a "long" time interval, it sends a relevant RLC_ABSENCE_NOTIFY message specifying the duration of its absence.
TP/MT/RRC/AB/CA-001	Reference: TS 101 761-2 [1], clause 5.2.4.1 Initial condition: Active_Mode. Check, that: when the duration time specified in the RLC_ABSENCE_NOTIFY has elapsed, the IUT indicates its presence by sending a relevant RLC_MT_ALIVE message.

5.3.2.4   Unsupported messages

TP/MT/RRC/UM/CA-000	Reference: TS 101 761-2 [1], clause 7 Initial condition: MT_Associated_to_AP. Check, that: after receiving an unsupported RRC message (100 ≤ pdu type ≥ 127), the IUT replies by sending a relevant RLC_NO_SUPPORT message.

5.3.2.5   Timers and repetitions of messages

TP/MT/RRC/TI-000	Reference: TS 101 761-2 [1], clause 6 Initial condition: MT_Associated_to_AP. Check, that: for an RRC procedure initiated by the IUT and when no reply was received, the IUT re-transmits the same message.
TP/MT/RRC/TI-001	Reference: TS 101 761-2 [1], clause 6 Initial condition: MT_Associated_to_AP. Check, that: for an RRC procedure initiated by the IUT and when each time no reply was received, the IUT re-transmits the same message 4 times and stops the initiated procedure.

5.3.3   DLC user connection

5.3.3.1   Centralized mode

5.3.3.1.1   Centralized mode - Set-up

5.3.3.1.1.1   Mobile originated

TP/MT/DUC/CS/CA-000	Reference: TS 101 761-2 [1], clause 5.3.1.2 Initial condition: MT_Associated_to_AP. Check, that: when the IUT wishes to establish a DLC user connection, it sends a relevant RLC_SETUP message.
TP/MT/DUC/CS/CA-001	Reference: TS 101 761-2 [1], clause 5.3.1.2 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_SETUP message. Check, that: after receiving the RLC_CONNECT message, the IUT replies to the LT with a RLC_CONNECT_ACK message and considers the DLC user connection as established.

5.3.3.1.1.2   Mobile terminated

TP/MT/DUC/CS/CA-002	Reference: TS 101 761-2 [1], clause 5.3.1.1 Initial condition: MT_Associated_to_AP. Check, that: after receiving the RLC_SETUP message, the IUT replies to the LT with a RLC_CONNECT message.
TP/MT/DUC/CS/CA-003	Reference: TS 101 761-2 [1], clause 5.3.1.1 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_CONNECT message. Check, that: after receiving the RLC_CONNECT_ACK message, the IUT considers the DLC user connection as established.

5.3.3.1.2   Centralized mode - Release

5.3.3.1.2.1   Mobile originated

TP/MT/DUC/CR/CA-000	Reference: TS 101 761-2 [1], clause 5.3.2.2 Initial condition: DUC_established. Check, that: when the IUT wishes to release a DLC user connection, it sends a relevant RLC_RELEASE message.

5.3.3.1.2.2   Mobile terminated

TP/MT/DUC/CR/CA-001	Reference: TS 101 761-2 [1], clause 5.3.2.1 Initial condition: DUC_established. Check, that: after receiving the RLC_RELEASE message, the IUT replies to the LT with a RLC_RELEASE_ACK message and considers the DLC user connection as released.

5.3.3.1.3   Centralized mode - Modify

5.3.3.1.3.1   Mobile originated

TP/MT/DUC/CM/CA-000	Reference: TS 101 761-2 [1], clause 5.3.3.2 Initial condition: DUC_established. Check, that: when the IUT wishes to modify a DLC user connection, it sends a relevant RLC_MODIFY_REQ message.
TP/MT/DUC/CM/CA-001	Reference: TS 101 761-2 [1], clause 5.3.3.2 Initial condition: DUC_established. IUT has sent a RLC_MODIFY_REQ message Check, that: after receiving the RLC_MODIFY message, the IUT replies to the LT with a RLC_MODIFY_ACK message and considers the DLC user connection as modified.

5.3.3.1.3.2   Mobile terminated

TP/MT/DUC/CM/CA-002	Reference: TS 101 761-2 [1], clause 5.3.3.1 Initial condition: DUC_established. Check, that: after receiving the RLC_MODIFY_REQ message, the IUT replies to the LT with a RLC_MODIFY message.
TP/MT/DUC/CM/CA-003	Reference: TS 101 761-2 [1], clause 5.3.3.1 Initial condition: DUC_established. IUT has sent a RLC_MODIFY message. Check, that: after receiving the RLC_MODIFY_ACK message, the IUT considers the DLC user connection as modified.

5.3.3.1.4   Centralized mode - Reset

5.3.3.1.4.1   Mobile originated

TP/MT/DUC/CT/CA-000	Reference: TS 101 761-2 [1], clause 5.3.4.2 Initial condition: DUC_established. Check, that: when the IUT wishes to reset a DLC user connection, it sends a relevant RLC_RESET message.

5.3.3.1.4.2   Mobile terminated

TP/MT/DUC/CT/CA-001	Reference: TS 101 761-2 [1], clause 5.3.4.1 Initial condition: DUC_established. Check, that: after receiving the RLC_RESET message, the IUT replies to the LT with a RLC_RESET_ACK message and considers the DLC user connection as established and restarted.

5.3.3.2   Direct Mode

5.3.3.2.1   Direct Mode - Set-up

5.3.3.2.1.1   Mobile originated

TP/MT/DUC/DS/CA-000	Reference: TS 101 761-2 [1], clause 5.3.7.1 Initial condition: MT_Associated_to_AP. Only for IUT that support the Direct Mode procedures. Check, that: when the IUT wishes to establish a DM DLC user connection, it sends a relevant RLC_DM_SETUP message to the AP/CC.
TP/MT/DUC/DS/CA-001	Reference: TS 101 761-2 [1], clause 5.3.7.1 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_SETUP message to the AP/CC. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT message, the IUT replies to the LT with a RLC_DM_CONNECT_ACK message.
TP/MT/DUC/DS/CA-002	Reference: TS 101 761-2 [1], clause 5.3.7.1 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_CONNECT_ACK message to the AP/CC. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT_COMPLETE message, the IUT replies to the LT with a RLC_DM_CONNECT_COMPLETE_ACK message.
TP/MT/DUC/DS/CA-003	Reference: TS 101 761-2 [1], clause 5.3.7.1 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_CONNECT_COMPLETE_ACK message to the AP/CC. Only for IUT that support the Direct Mode procedures. Check, that: after completion of the DM setup procedure, the U-plane is established between the MT1 and the MT2.

5.3.3.2.1.2   Mobile terminated

TP/MT/DUC/DS/CA-004	Reference: TS 101 761-2 [1], clause 5.3.7.2 Initial condition: MT_Associated_to_AP. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_SETUP message from AP/CC, the IUT replies with a RLC_DM_CONNECT message.
TP/MT/DUC/DS/CA-005	Reference: TS 101 761-2 [1], clause 5.3.7.2 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_CONNECT message to AP/CC. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT_ACK message, the IUT awaits a relevant RLC_DM_CONNECT_COMPLETE message.
TP/MT/DUC/DS/CA-006	Reference: TS 101 761-2 [1], clause 5.3.7.2 Initial condition: MT_Associated_to_AP. IUT is awaiting a RLC_DM_CONNECT_COMPLETE message. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT_COMPLETE message, the IUT sends a relevant RLC_DM_CONNECT_COMPLETE_ACK message.
TP/MT/DUC/DS/CA-007	Reference: TS 101 761-2 [1], clause 5.3.7.2 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_CONNECT_COMPLETE_ACK message. Only for IUT that support the Direct Mode procedures. Check, that: after completion of the DM setup procedure, the U-plane is established between the MT1 and the MT2.

5.3.3.2.2 Direct Mode - Release

5.3.3.2.2.1 Mobile originated

TP/MT/DUC/DR/CA-000	Reference: TS 101 761-2 [1], clause 5.3.8.1 Initial condition: DM DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: when the IUT wishes to release a DM DLC user connection, it sends a relevant RLC_DM_RELEASE message.
TP/MT/DUC/DR/CA-001	Reference: TS 101 761-2 [1], clause 5.3.8.1 Initial condition: DM DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RELEASE message to the MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_RELEASE_ACK message, the IUT considers the DM DLC user connection as released.

5.3.3.2.2.2 Mobile terminated

TP/MT/DUC/DR/CA-002	Reference: TS 101 761-2 [1], clause 5.3.8.2 Initial condition: DM DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_RELEASE message, the IUT sends a relevant RLC_DM_RELEASE_ACK message.
TP/MT/DUC/DR/CA-003	Reference: TS 101 761-2 [1], clause 5.3.8.2 Initial condition: DM DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RELEASE_ACK message. Only for IUT that support the Direct Mode procedures. Check, that: after completion of the DM release procedure, the U-plane is released between the MT1 and the MT2.

5.3.3.2.3 Direct Mode - Modify

5.3.3.2.3.1 Mobile originated

TP/MT/DUC/DM/CA-000	Reference: TS 101 761-2 [1], clause 5.3.9.1 Initial condition: DM DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: when the IUT wishes to modify a DM DLC user connection, it sends a relevant RLC_DM_MODIFY_REQ message.
TP/MT/DUC/DM/CA-001	Reference: TS 101 761-2 [1], clause 5.3.9.1 Initial condition: DUC_established. IUT has sent a RLC_DM_MODIFY_REQ message. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY message, the IUT replies to the LT with a RLC_DM_MODIFY_ACK message.
TP/MT/DUC/DM/CA-002	Reference: TS 101 761-2 [1], clause 5.3.9.1 Initial condition: DUC_established. IUT has sent an RLC_DM_MODIFY_ACKmessage. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY_COMPLETE message, the IUT replies with a relevant RLC_DM_MODIFY_COMPLETE_ACK message.
TP/MT/DUC/DM/CA-003	Reference: TS 101 761-2 [1], clause 5.3.9.1 Initial condition: DUC_established. IUT has sent a RLC_DM_MODIFY_COMPLETE_ACK message. Only for IUT that support the Direct Mode procedures. Check, that: after completion of the DM modify procedure, the IUT considers the DM DLC user connection as modified.

5.3.3.2.3.2   Mobile terminated

TP/MT/DUC/DM/CA-004	Reference: TS 101 761-2 [1], clause 5.3.9.2 Initial condition: DM DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY_REQ message, the IUT replies to the LT with a RLC_DM_MODIFY message.
TP/MT/DUC/DM/CA-005	Reference: TS 101 761-2 [1], clause 5.3.9.2 Initial condition: DM DUC_established. IUT has sent a RLC_DM_MODIFY message. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY_ACK message, the IUT awaits a relevant RLC_DM_MODIFY_COMPLETE message.
TP/MT/DUC/DM/CA-006	Reference: TS 101 761-2 [1], clause 5.3.9.2 Initial condition: DUC_established. IUT has sent a RLC_DM_MODIFY message. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY_COMPLETE message from, the IUT replies to the LT with a relevant RLC_DM_MODIFY_COMPLETE_ACK message.
TP/MT/DUC/DM/CA-007	Reference: TS 101 761-2 [1], clause 5.3.9.2 Initial condition: DUC_established. IUT has sent a RLC_DM_MODIFY_COMPLETE_ACK message. Only for IUT that support the Direct Mode procedures. Check, that: after completion of the DM modify procedure, the IUT considers the DM DLC user connection as modified.

5.3.3.2.4   Relay Set-up

5.3.3.2.4.1   Mobile originated

TP/MT/DUC/RS/CA-000	Reference: TS 101 761-2 [1], clause 5.3.7.3 Initial condition: MT_Associated_to_AP. Only for IUT that support the Direct Mode procedures. Check, that: when the IUT wishes to establish a Relay DM DLC user connection, it sends a relevant RLC_RELAY_SETUP message to the AP/CC.
TP/MT/DUC/RS/CA-001	Reference: TS 101 761-2 [1], clauses 5.3.7.3, 5.3.7.2 Initial condition: MT_Associated_to_AP. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_SETUP message from AP/CC, the IUT replies with a RLC_DM_CONNECT message.
TP/MT/DUC/RS/CA-002	Reference: TS 101 761-2 [1], clauses 5.3.7.3, 5.3.7.2 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_CONNECT message to AP/CC. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT_ACK message, the IUT awaits a relevant RLC_DM_CONNECT_COMPLETE message.
TP/MT/DUC/RS/CA-003	Reference: TS 101 761-2 [1], clauses 5.3.7.3, 5.3.7.2 Initial condition: MT_Associated_to_AP. IUT is awaiting a RLC_DM_CONNECT_COMPLETE message. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_CONNECT_COMPLETE message, the IUT sends a relevant RLC_DM_CONNECT_COMPLETE_ACK message.
TP/MT/DUC/RS/CA-004	Reference: TS 101 761-2 [1], clauses 5.3.7.3, 5.3.7.2 Initial condition: MT_Associated_to_AP. IUT has sent a RLC_DM_CONNECT_COMPLETE_ACK message. Only for IUT that support the Direct Mode procedures. Check, that: after the IUT has received the RLC_RELAY_SETUP_ACK message, two U-planes are established. One is established between the MT1 and AP/CC and another one is established between the MT2 and AP/CC.

5.3.3.2.5   Relay Release

5.3.3.2.5.1   Mobile originated

TP/MT/DUC/RR/CA-000	Reference: TS 101 761-2 [1], clause 5.3.8.3 Initial condition: DM relay DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: when the IUT wishes to release a DM relay DLC user connection, it sends a relevant RLC_RELAY_RELEASE message.
TP/MT/DUC/RR/CA-001	Reference: TS 101 761-2 [1], clauses 5.3.8.3, 5.3.8.1 Initial condition: DM relay DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_RELEASE message, the IUT sends a relevant RLC_DM_RELEASE_ACK message.
TP/MT/DUC/RR/CA-002	Reference: TS 101 761-2 [1], clauses 5.3.8.3, 5.3.8.1 Initial condition: DM relay DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RELEASE_ACK message. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_RELAY_RELEASE_ACK message, the two DM relay DLC user connections are released.

5.3.3.2.6   Relay Modify

5.3.3.2.6.1   Mobile originated

TP/MT/DUC/RM/CA-000	Reference: TS 101 761-2 [1], clause 5.3.9.3 Initial condition: DM relay DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: when the IUT wishes to modify a DM relay DLC user connection, it sends a relevant RLC_RELAY_MODIFY message.
TP/MT/DUC/RM/CA-001	Reference: TS 101 761-2 [1], clauses 5.3.9.3, 5.3.9.2 Initial condition: DM relay DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY_REQ message, the IUT replies to the LT with a RLC_DM_MODIFY message.
TP/MT/DUC/RM/CA-002	Reference: TS 101 761-2 [1], clauses 5.3.9.3, 5.3.9.2 Initial condition: DM relay DUC_established. IUT has sent a RLC_DM_MODIFY message. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY_ACK message, the IUT awaits a relevant RLC_DM_MODIFY_COMPLETE message.
TP/MT/DUC/RM/CA-003	Reference: TS 101 761-2 [1], clauses 5.3.9.3, 5.3.9.2 Initial condition: DM relay DUC_established. IUT has sent a RLC_DM_MODIFY message. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_MODIFY_COMPLETE message, the IUT replies to the LT with a relevant RLC_DM_MODIFY_COMPLETE_ACK message.
TP/MT/DUC/RM/CA-004	Reference: TS 101 761-2 [1], clauses 5.3.9.3, 5.3.9.2 Initial condition: DM relay DUC_established. IUT has sent a RLC_DM_MODIFY_COMPLETE_ACK message. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_RELAY_MODIFY_ACK message, the IUT considers the two DM relay DLC user connections as modified.

5.3.3.2.7   Direct Mode - Reset

5.3.3.2.7.1   Mobile originated

TP/MT/DUC/DT/CA-000	Reference: TS 101 761-2 [1], clause 5.3.10.1 Initial condition: DM DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: when the IUT wishes to reset a DM DLC user connection, it sends a relevant RLC_DM_RESET message.
TP/MT/DUC/DT/CA-001	Reference: TS 101 761-2 [1], clause 5.3.10.1 Initial condition: DM DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RESET message. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_RESET_ACK message, the IUT considers the DM DLC user connection as established and restarted.

5.3.3.2.7.2   Mobile terminated

TP/MT/DUC/DT/CA-002	Reference: TS 101 761-2 [1], clause 5.3.10.2 Initial condition: DM DUC_established between MT1 and MT2. Only for IUT that support the Direct Mode procedures. Check, that: after receiving the RLC_DM_RESET message, the IUT sends a relevant RLC_DM_RESET_ACK message.
TP/MT/DUC/DT/CA-003	Reference: TS 101 761-2 [1], clause 5.3.10.2 Initial condition: DM DUC_established between MT1 and MT2. IUT has sent a RLC_DM_RESET_ACK message. Only for IUT that support the Direct Mode procedures. Check, that: after completion of the DM reset procedure, the U-plane is established and restarted between the MT1 and the MT2.

5.3.3.3   Unsupported messages

TP/MT/DUC/UM/CA-000	Reference: TS 101 761-2 [1], clause 7 Initial condition: MT_Associated_to_AP. Check, that: after receiving an unsupported DUC message (160 ≤ pdu type), the IUT replies by sending a relevant RLC_NO_SUPPORT message.

5.3.3.4   Timers and repetitions of messages

TP/MT/DUC/TI-000	Reference: TS 101 761-2 [1], clause 6 Initial condition: MT_Associated_to_AP. Check, that: for a DUC procedure initiated by the IUT and when no reply was received, the IUT re-transmits the same message.
TP/MT/DUC/TI-001	Reference: TS 101 761-2 [1], clause 6 Initial condition: MT_Associated_to_AP. Check, that: for an DUC procedure initiated by the IUT and when each time no reply was received, the IUT re-transmits the same message 4 times and stops the initiated procedure.
TP/MT/DUC/TI-002	Reference: TS 101 761-2 [1], clause 6 Initial condition: MT_Associated_to_AP. Check, that: for an DUC procedure initiated by the LT that uses either a T_medium timer or T_long timer, the IUT replies with a relevant RLC_PROCEEDING message as an acknowledgement for the received message.

History

Document history		
V1.1.1	September 2000	Publication
V1.1.1	January 2001	Publication as EN 301 823-2-2
V1.2.1	December 2001	Publication