TSG-RAN Meeting #25 **RP-040329**
Palm Springs, USA, 07-09 April 2004 **Agenda item 7.3.3**

Source: **TSG-RAN WG2.**

Title: **CRs to 34.109 R'99 with linked CRs to Rel-4/Rel-5/Rel-6.**

The following CRs are in RP-040329:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Workitem	Doc-2nd-Level
34.109	026	-	R99	Correction to figure 5.3.2.6.2.2	F	3.9.0	3.10.0	TEI	R2-041752
34.109	027	-	R99	UE test loop mode with PDCP configuration	F	3.9.0	3.10.0	TEI	R2-041753
34.109	028	-	Rel-4	UE test loop mode with PDCP configuration	A	4.5.0	4.6.0	TEI	R2-041754
34.109	029	-	Rel-5	UE test loop mode with PDCP configuration	A	5.3.0	5.4.0	TEI	R2-041755
34.109	031	1	R99	Addition of RESET UE POSITIONING STORED INFORMATION message	F	3.9.0	3.10.0	TEI	R2-041873
34.109	032	1	Rel-4	Addition of RESET UE POSITIONING STORED INFORMATION message	A	4.5.0	4.6.0	TEI	R2-041874
34.109	033	1	Rel-5	Addition of RESET UE POSITIONING STORED INFORMATION message	A	5.3.0	5.4.0	TEI	R2-041875

3GPP TSG-RAN2 Meeting #43
Prague, Czech Republic, 16-20 August 2004

Tdoc ⌘ R2-041752

CR-Form-v7

CHANGE REQUEST

⌘ **34.109** **CR** **026** ⌘ **rev** **-** ⌘ Current version: **3.9.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction to figure 5.3.2.6.2.2
Source:	⌘	RAN WG2
Work item code:	⌘	TEI
Date:	⌘	17/Aug/2004
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	CR011 introduced errors for the figure 5.3.2.6.1.1 and 5.3.2.6.2.2. CR019 tried to correct the error but only corrected the figure 5.3.2.6.1.1. The error of the figure 5.3.2.6.2.2 still remains. Note that this correction is needed only for R99.
Summary of change:	⌘	The figure 5.3.2.6.2.2 is corrected to reflect the refered relation between DL RLC SDU size and UL RLC SDU size.
Consequences if not approved:	⌘	UE would not be albe to pass test cases using UE test loop mode 1 with DL RLC SDU size larger than UL RLC SDU size. **Isolated impact analysis:** The CR has isolated impact for UE test operation with test loop mode 1. **Impact on test specifications:** No impact since test specifications already assume corrected loop back scheme.

Clauses affected:	⌘	5.3.2.6.2			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.3.2.6.2 Loopback of RLC SDUs

If UE test mode 1 has been selected and radio bearer setup does not include configuration of PDCP protocol layer then the following loop back scheme shall be performed by the UE.

After the UE has closed its radio bearer test loop, every user data block received by the UE on the active radio bearer (downlink) shall be taken from the output of the RLC service access point (SAP) and be input to the correspondent RLC SAP and transmitted (uplink). The UE reads the UL RLC SDU size parameter from the "LB Setup RB IE#k" parameter associated with the radio bearer, see subclause 6.2.

If no "LB Setup RB IE#k" parameter is associated with the radio bearer then the UE shall use the same UL RLC SDU size as the received DL RLC SDU.

For the case when the "UL RLC SDU size" parameter is set to "0" no data shall be returned.

For the case when the "UL RLC SDU size" parameter is set to the same value as the down link (DL) RLC SDU block size then the complete user data block shall be returned, see figure 5.3.2.6.2.1.

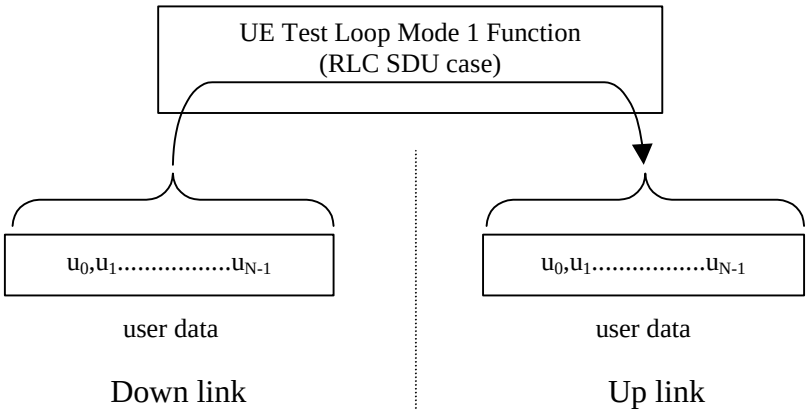

Figure 5.3.2.6.2.1: DL and UL RLC SDU block size equal (DL RLC SDU size = UL RLC SDU size = N)

For the case when the "UL RLC SDU size" parameter is set to a value less than the down link (DL) RLC SDU block size then the UE shall return the first K bits of the received block, where K is the UL block size, see figure 5.3.2.6.2.2.

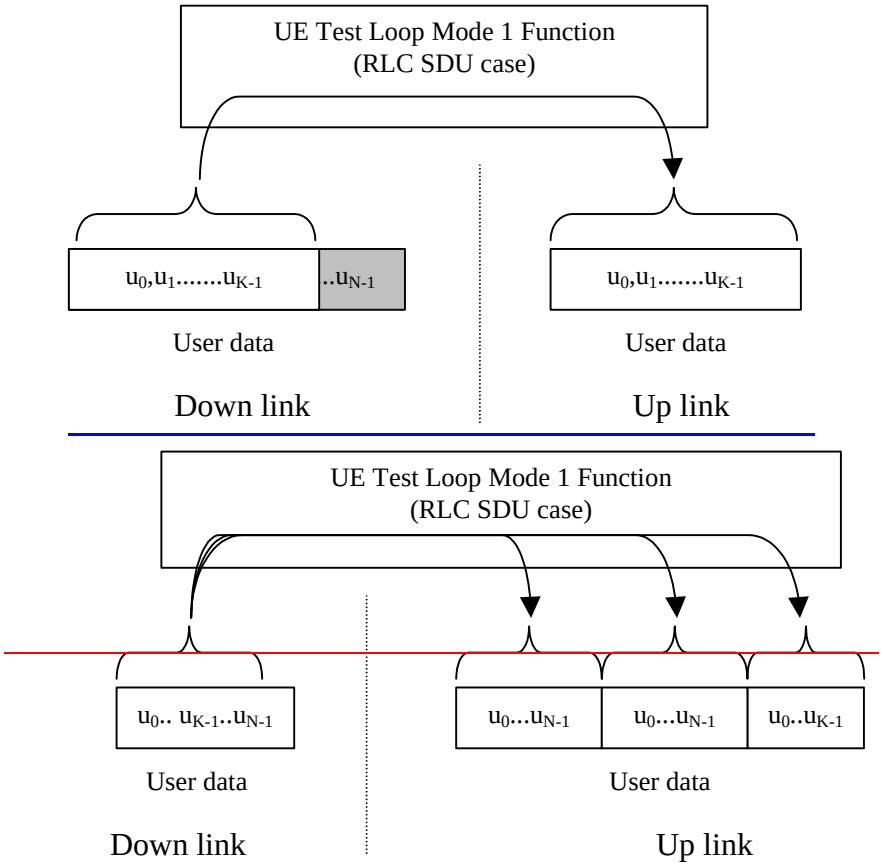

Figure 5.3.2.6.2.2: DL > UL RLC SDU block size
(DL RLC SDU size = N, UL RLC SDU size = K)

For the case when the "UL RLC SDU size" parameter is set to a value bigger than the down link (DL) RLC SDU block size then the UE shall pad the UL send block by repeating the received data block until the UL send block has been filled (truncating the last block if necessary), see figure 5.3.2.6.2.3.

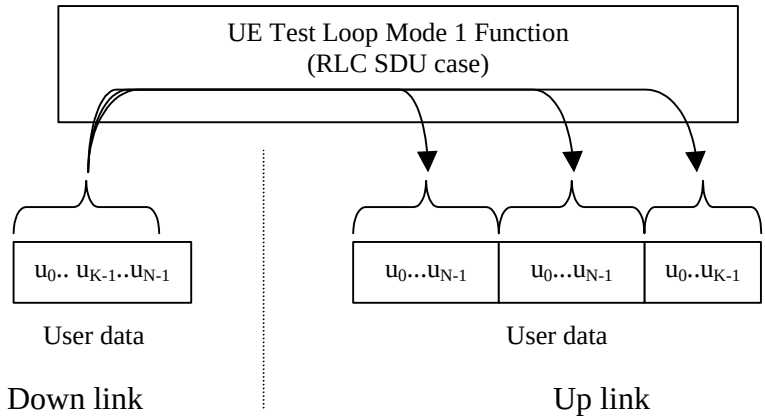

Figure 5.3.2.6.2.3: DL < UL RLC SDU block size
(DL RLC SDU size = N, UL RLC SDU size = 2*N + K)

3GPP TSG-RAN2 Meeting #43
Prague, Czech Republic, 16-20 August 2004

Tdoc ⌘ R2-041753

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CHANGE REQUEST

⌘ **34.109** **CR** **027** ⌘ **rev** **-** ⌘ Current version: **3.9.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	UE test loop mode with PDCP configuration
Source:	⌘	RAN WG2
Work item code:	⌘	TEI
Date:	⌘	17/Aug/2004
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
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R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	"Loopback of PDCP SDUs" decribed in section 5.3.2.6.1 is stated to be applied if UE test loop mode 1 is configured for an RB which includes the PDCP protocol layer. However it is not clear with what condition the UE should consider configuration for an RB includes the PDCP layer. There are three possible conditions. - The RB is used for PS RAB. - The RB SETUP message includes the IE "PDCP info". - The RB SETUP message includes the IE "PDCP info" and the IE "PDCP info" indicates usage of PDCP header and/or header compression. Test cases specified in 34.123-1 don't seem to assume a RB for PS RAB always configured with PDCP layer. It can therefore be considered that the first interpretation above is not correct. For example in 7.2.2.4 "Segmentation and Reassembly / 7-bit "Length Indicators" / LI = 0", "Interactive or background / UL:8 DL 8 kbps / PS RAB + UL:3.4 DL 3.4 kbps SRBs for DCCH" is used. The SS sets up loopback mode 1 with the UL RLC SDU size of UM_7_PayloadSize bytes. Then the SS transmits an RLC SDU of size 2 * UM_7_PayloadSize bytes. In this test case the UE shall apply loop-back mode 1 described in the Figure 5.3.2.6.2.2 (No PDCP layer).
Summary of change:	⌘	It is proposed to specify that "Loopback of PDCP SDUs" is applied if the IE "PDCP info" is included in RB SETUP message, assuming that "transparent PDCP operation" should be tested.
Consequences if not approved:	⌘	UE would not be albe to pass test cases using UE test loop mode 1 with PS RAB.

	Isolated impact analysis: The CR has isolated impact for UE test operation with test loop mode 1. **Impact on test specifications:** No impact is foreseen.

Clauses affected:	⌘	5.3.2.6, 5.3.2.6.1, 5.3.2.6.2			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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5.3.2.6 UE test loop mode 1 operation

If the configuration of a radio bearer includes the PDCP protocol layer, configured by "PDCP info" (see TS25.331 [5]), then the loop back scheme according to subclause 5.3.2.6.1 shall be performed by the UE for the actual radio bearer.

If the PDCP protocol layer is not used for a radio bearer then the loop back scheme according to subclause 5.3.2.6.2 shall be performed by the UE for the actual radio bearer.

5.3.2.6.1 Loopback of PDCP SDUs

If UE test mode 1 have been selected and the radio bearer setup includes configuration of PDCP protocol layer, configured by "PDCP info" (see TS25.331 [5]), then the following loop back scheme shall be performed by the UE.

After the UE has closed its radio bearer test loop, every PDCP SDU received by the UE on the active radio bearer (downlink) shall be taken from the output of the PDCP service access point (SAP) and be input to the correspondent PDCP SAP and transmitted (uplink).

The UE shall provide for normal PDCP operation.

The PDCP loopback operation is illustrated in figure 5.3.2.6.1.1.

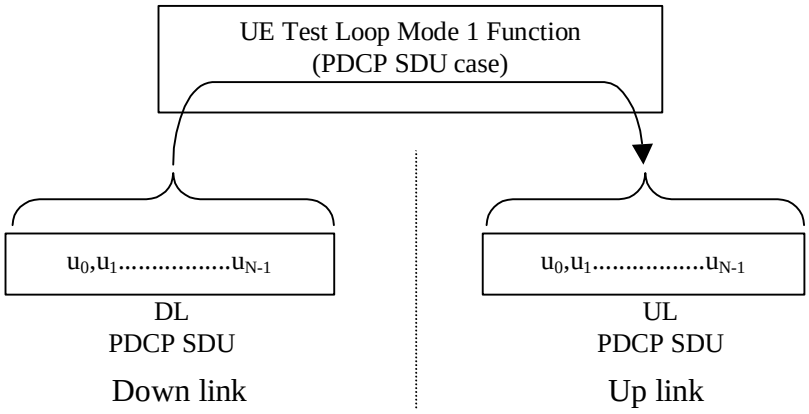

Figure 5.3.2.6.1.1: Loop back of PDCP SDU
(DL RLC SDU size = UL RLC SDU size = N)

5.3.2.6.2 Loopback of RLC SDUs

If UE test mode 1 has been selected and radio bearer setup does not include configuration of PDCP protocol layer ("PDCP info" is not configured. See TS25.331 [5]) then the following loop back scheme shall be performed by the UE.

After the UE has closed its radio bearer test loop, every user data block received by the UE on the active radio bearer (downlink) shall be taken from the output of the RLC service access point (SAP) and be input to the correspondent RLC SAP and transmitted (uplink). The UE reads the UL RLC SDU size parameter from the "LB Setup RB IE#k" parameter associated with the radio bearer, see subclause 6.2.

If no "LB Setup RB IE#k" parameter is associated with the radio bearer then the UE shall use the same UL RLC SDU size as the received DL RLC SDU.

For the case when the "UL RLC SDU size" parameter is set to "0" no data shall be returned.

For the case when the "UL RLC SDU size" parameter is set to the same value as the down link (DL) RLC SDU block size then the complete user data block shall be returned, see figure 5.3.2.6.2.1.

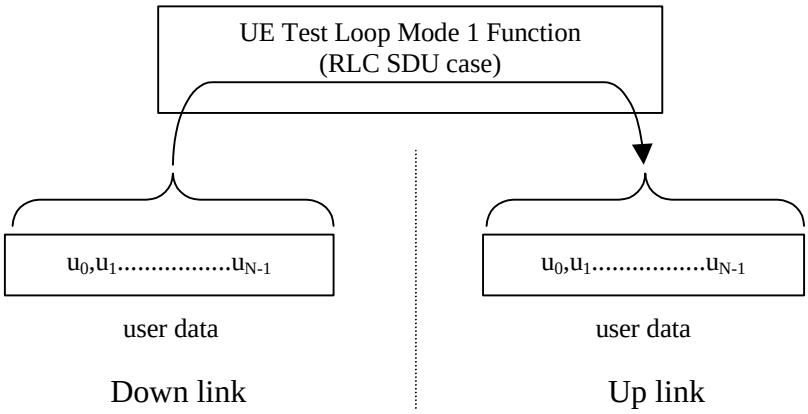

Figure 5.3.2.6.2.1: DL and UL RLC SDU block size equal (DL RLC SDU size = UL RLC SDU size = N)

For the case when the "UL RLC SDU size" parameter is set to a value less than the down link (DL) RLC SDU block size then the UE shall return the first K bits of the received block, where K is the UL block size, see figure 5.3.2.6.2.2.

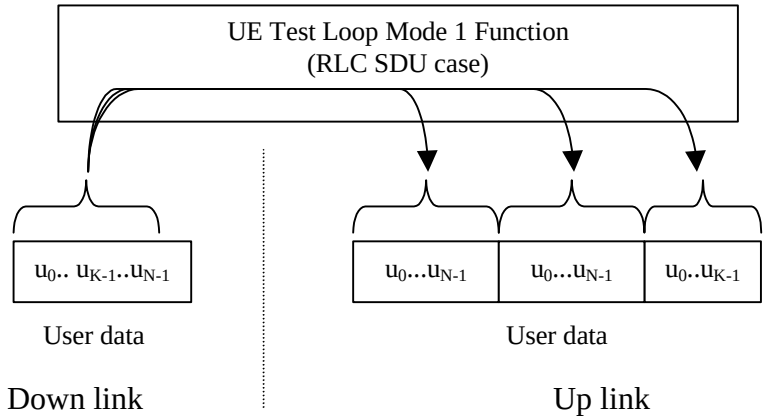

Figure 5.3.2.6.2.2: DL > UL RLC SDU block size (DL RLC SDU size = N, UL RLC SDU size = K)

For the case when the "UL RLC SDU size" parameter is set to a value bigger than the down link (DL) RLC SDU block size then the UE shall pad the UL send block by repeating the received data block until the UL send block has been filled (truncating the last block if necessary), see figure 5.3.2.6.2.3.

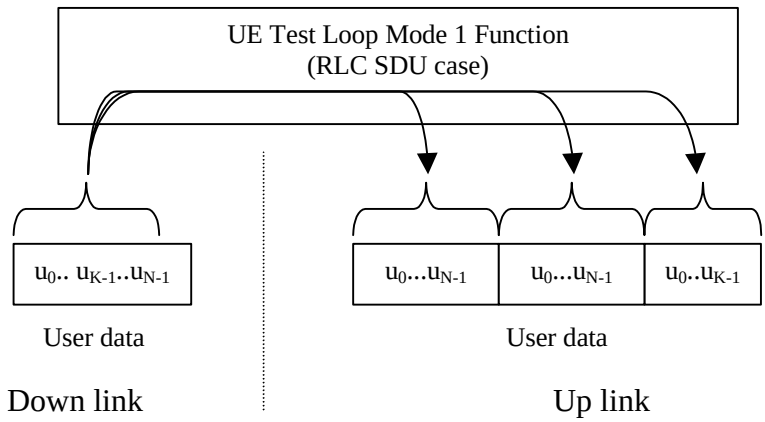

Figure 5.3.2.6.2.3: DL < UL RLC SDU block size (DL RLC SDU size = N, UL RLC SDU size = 2*N + K)

6.2 CLOSE UE TEST LOOP <only for reference>

This message is only sent in the direction SS to UE.

Information Element	Reference	Presence	Format	Length
Protocol discriminator	TS 24.007 [1], subclause 11.2.3.1.1	M	V	½
Skip indicator	TS 24.007 [1], subclause 11.2.3.1.2	M	V	½
Message type		M	V	1
UE test loop mode		M	V	1
UE test loop mode 1 LB setup		C	LV	1-13

where message type is:

8	7	6	5	4	3	2	1	bit no.
0	1	0	0	0	0	0	0	octet 1

where UE test loop mode is:

8	7	6	5	4	3	2	1	bit no.
0	0	0	0	0	0	X2	X1	octet 1

X2=0 and X1=0 then UE test loop mode 1 loop back scheme according to 5.3.2.6 shall be performed by the UE (loopback of RLC SDUs or PDCP SDUs).

X2=0 and X1=1 then UE test loop mode 2 loop back scheme according to 5.3.2.7 shall be performed by the UE (loopback of transport block data and CRC bits).

For backward compatibility reason, the bit 3 of octet 1 shall not be used and shall always be set to zero.

where UE test loop mode 1 LB setup is:

8	7	6	5	4	3	2	1	
Length of UE test loop mode 1 LB setup IE								Octet 1
LB setup list								Octet 2 Octet N*3+1

N is the number of LB entities in the LB setup list and is less than or equal to 4.

where LB setup list is:

8	7	6	5	4	3	2	1	
LB setup RB IE#1								Octet 2 Octet 3 Octet 4
LB setup RB IE#2								Octet 5 Octet 6 Octet 7
…								
LB setup RB IE#N								Octet N*3-1 Octet N*3 Octet N*3+1

where LB Setup RB IE#k is:

8	7	6	5	4	3	2	1	bit no.
Z15	Z14	Z13	Z12	Z11	Z10	Z9	Z8	octet 1
Z7	Z6	Z5	Z4	Z3	Z2	Z1	Z0	octet 2
Reserved			Q4	Q3	Q2	Q1	Q0	octet 3

Z15..Z0 = Uplink RLC SDU size in bits 0.. 65535 (binary coded, Z15 is most significant bit and Z0 least significant bit), see Note 1.

Q4..Q0 = RB identity number, 5..32 (binary coded, Q4 is most significant bit and Q0 least significant bit), where RB identity identifies the radio bearer, see [5] TS 25.331. The range is limited to 5..32 due to RB0 to RB4 are reserved for signalling radio bearers.

NOTE: The parameter UL RLC SDU size is only applicable for UE test loop mode 1 and for radio bearers not using the PDCP protocol layer, see subclause 5.3.2.6.2. The UE capability for the parameter UL RLC SDU size is stated by the UE manufacturer as an Implementation Conformations Statement (ICS) as defined in TS 34.123-2 [17], subclause A.4.3.1 table A.13. The UE Total RLC AM buffer size according to the UE Radio Access Capabilities defined in TS 25.306 [18] shall not be exceeded.

3GPP TSG-RAN2 Meeting #43
Prague, Czech Republic, 16-20 August 2004

Tdoc ⌘ R2-041754

CR-Form-v7

CHANGE REQUEST

⌘ **34.109** **CR** **028** ⌘ **rev** **-** ⌘ Current version: **4.5.0** ⌘

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Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	UE test loop mode with PDCP configuration
Source:	⌘	RAN WG2
Work item code:	⌘	TEI
Date:	⌘	17/Aug/2004
Category:	⌘	**A**
Release:	⌘	Rel-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
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R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*

Reason for change: ⌘

"Loopback of PDCP SDUs" decribed in section 5.3.2.6.1 is stated to be applied if UE test loop mode 1 is configured for an RB which includes the PDCP protocol layer. However it is not clear with what condition the UE should consider configuration for an RB includes the PDCP layer.

There are three possible conditions.
- The RB is used for PS RAB.
- The RB SETUP message includes the IE "PDCP info".
- The RB SETUP message includes the IE "PDCP info" and the IE "PDCP info" indicates usage of PDCP header and/or header compression.

Test cases specified in 34.123-1 don't seem to assume a RB for PS RAB always configured with PDCP layer. It can therefore be considered that the first interpretation above is not correct.

For example in 7.2.2.4 "Segmentation and Reassembly / 7-bit "Length Indicators" / LI = 0", "Interactive or background / UL:8 DL 8 kbps / PS RAB + UL:3.4 DL 3.4 kbps SRBs for DCCH" is used. The SS sets up loopback mode 1 with the UL RLC SDU size of UM_7_PayloadSize bytes. Then the SS transmits an RLC SDU of size 2 * UM_7_PayloadSize bytes.
In this test case the UE shall apply loop-back mode 1 described in the Figure 5.3.2.6.2.2 (No PDCP layer).

Summary of change: ⌘

It is proposed to specify that "Loopback of PDCP SDUs" is applied if the IE "PDCP info" is included in RB SETUP message, assuming that "transparent PDCP operation" should be tested.

Consequences if not approved: ⌘

UE would not be albe to pass test cases using UE test loop mode 1 with PS RAB.

	Isolated impact analysis: The CR has isolated impact for UE test operation with test loop mode 1. **Impact on test specifications:** No impact is foreseen.

Clauses affected:	⌘	5.3.2.6, 5.3.2.6.1, 5.3.2.6.2			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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5.3.2.6 UE test loop mode 1 operation

If the configuration of a radio bearer includes the PDCP protocol layer, configured by "PDCP info" (see TS25.331 [5]), then the loop back scheme according to subclause 5.3.2.6.1 shall be performed by the UE for the actual radio bearer.

If the PDCP protocol layer is not used for a radio bearer then the loop back scheme according to subclause 5.3.2.6.2 shall be performed by the UE for the actual radio bearer.

5.3.2.6.1 Loopback of PDCP SDUs

If UE test mode 1 have been selected and the radio bearer setup includes configuration of PDCP protocol layer, configured by "PDCP info" (see TS25.331 [5]), then the following loop back scheme shall be performed by the UE.

After the UE has closed its radio bearer test loop, every PDCP SDU received by the UE on the active radio bearer (downlink) shall be taken from the output of the PDCP service access point (SAP) and be input to the correspondent PDCP SAP and transmitted (uplink).

The UE shall provide for normal PDCP operation.

The PDCP loopback operation is illustrated in figure 5.3.2.6.1.1.

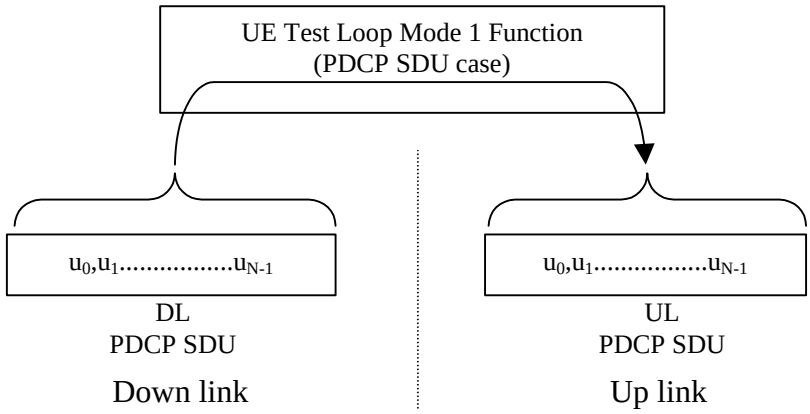


Figure 5.3.2.6.1.1: Loop back of PDCP SDU
(DL RLC SDU size = UL RLC SDU size = N)

5.3.2.6.2 Loopback of RLC SDUs

If UE test mode 1 has been selected and radio bearer setup does not include configuration of PDCP protocol layer ("PDCP info" is not configured. See TS25.331 [5]) then the following loop back scheme shall be performed by the UE.

After the UE has closed its radio bearer test loop, every user data block received by the UE on the active radio bearer (downlink) shall be taken from the output of the RLC service access point (SAP) and be input to the correspondent RLC SAP and transmitted (uplink). The UE reads the UL RLC SDU size parameter from the "LB Setup RB IE#k" parameter associated with the radio bearer, see subclause 6.2.

If no "LB Setup RB IE#k" parameter is associated with the radio bearer then the UE shall use the same UL RLC SDU size as the received DL RLC SDU.

For the case when the "UL RLC SDU size" parameter is set to "0" no data shall be returned.

For the case when the "UL RLC SDU size" parameter is set to the same value as the down link (DL) RLC SDU block size then the complete user data block shall be returned, see figure 5.3.2.6.2.1.

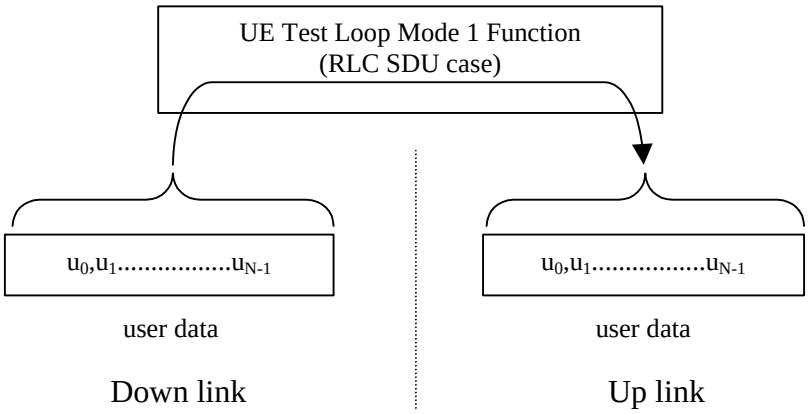


Figure 5.3.2.6.2.1: DL and UL RLC SDU block size equal (DL RLC SDU size = UL RLC SDU size = N)

For the case when the "UL RLC SDU size" parameter is set to a value less than the down link (DL) RLC SDU block size then the UE shall return the first K bits of the received block, where K is the UL block size, see figure 5.3.2.6.2.2.

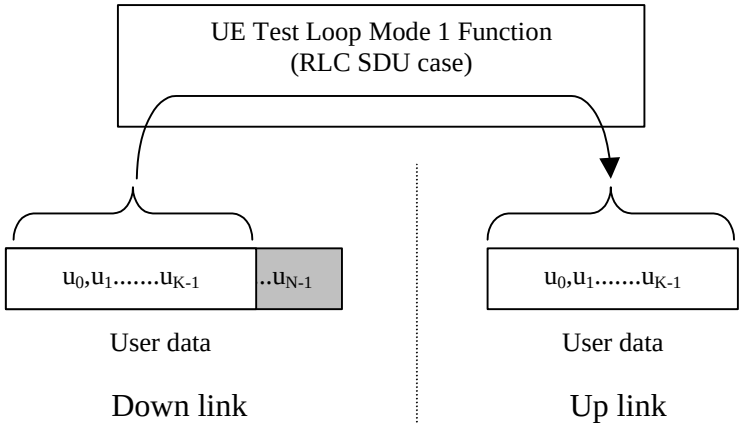


Figure 5.3.2.6.2.2: DL > UL RLC SDU block size (DL RLC SDU size = N, UL RLC SDU size = K)

For the case when the "UL RLC SDU size" parameter is set to a value bigger than the down link (DL) RLC SDU block size then the UE shall pad the UL send block by repeating the received data block until the UL send block has been filled (truncating the last block if necessary), see figure 5.3.2.6.2.3.

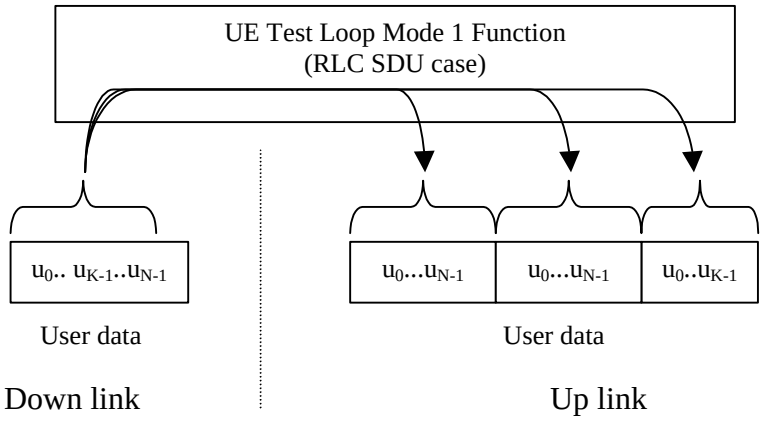


Figure 5.3.2.6.2.3: DL < UL RLC SDU block size (DL RLC SDU size = N, UL RLC SDU size = 2*N + K)

6.2 CLOSE UE TEST LOOP <only for reference>

This message is only sent in the direction SS to UE.

Information Element	Reference	Presence	Format	Length
Protocol discriminator	TS 24.007 [1], subclause 11.2.3.1.1	M	V	½
Skip indicator	TS 24.007 [1], subclause 11.2.3.1.2	M	V	½
Message type		M	V	1
UE test loop mode		M	V	1
UE test loop mode 1 LB setup		C	LV	1-13

where message type is:

8	7	6	5	4	3	2	1	bit no.
0	1	0	0	0	0	0	0	octet 1

where UE test loop mode is:

8	7	6	5	4	3	2	1	bit no.
0	0	0	0	0	0	X2	X1	octet 1

X2=0 and X1=0 then UE test loop mode 1 loop back scheme according to 5.3.2.6 shall be performed by the UE (loopback of RLC SDUs or PDCP SDUs).

X2=0 and X1=1 then UE test loop mode 2 loop back scheme according to 5.3.2.7 shall be performed by the UE (loopback of transport block data and CRC bits).

For backward compatibility reason, the bit 3 of octet 1 shall not be used and shall always be set to zero.

where UE test loop mode 1 LB setup is:

8	7	6	5	4	3	2	1	
Length of UE test loop mode 1 LB setup IE								Octet 1
LB setup list								Octet 2 Octet N*3+1

N is the number of LB entities in the LB setup list and is less than or equal to 4.

where LB setup list is:

8	7	6	5	4	3	2	1	
LB setup RB IE#1								Octet 2 Octet 3 Octet 4
LB setup RB IE#2								Octet 5 Octet 6 Octet 7
…								
LB setup RB IE#N								Octet N*3-1 Octet N*3 Octet N*3+1

where LB Setup RB IE#k is:

8	7	6	5	4	3	2	1	bit no.
Z15	Z14	Z13	Z12	Z11	Z10	Z9	Z8	octet 1
Z7	Z6	Z5	Z4	Z3	Z2	Z1	Z0	octet 2
Reserved			Q4	Q3	Q2	Q1	Q0	octet 3

Z15..Z0 = Uplink RLC SDU size in bits 0.. 65535 (binary coded, Z15 is most significant bit and Z0 least significant bit), see Note 1.

Q4..Q0 = RB identity number, 5..32 (binary coded, Q4 is most significant bit and Q0 least significant bit), where RB identity identifies the radio bearer, see [5] TS 25.331. The range is limited to 5..32 due to RB0 to RB4 are reserved for signalling radio bearers.

NOTE: The parameter UL RLC SDU size is only applicable for UE test loop mode 1 and for radio bearers not using the PDCP protocol layer, see subclause 5.3.2.6.2. The UE capability for the parameter UL RLC SDU size is stated by the UE manufacturer as an Implementation Conformations Statement (ICS) as defined in TS 34.123-2 [17], subclause A.4.3.1 table A.13. The UE Total RLC AM buffer size according to the UE Radio Access Capabilities defined in TS 25.306 [18] shall not be exceeded.

3GPP TSG-RAN2 Meeting #43
Prague, Czech Republic, 16-20 August 2004

Tdoc ⌘ R2-041755

CR-Form-v7

CHANGE REQUEST

⌘ **34.109** **CR** **029** ⌘ **rev** **-** ⌘ Current version: **5.3.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	UE test loop mode with PDCP configuration
Source:	⌘	RAN WG2
Work item code:	⌘	TEI
Date:	⌘	17/Aug/2004
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*

Reason for change: ⌘

"Loopback of PDCP SDUs" decribed in section 5.3.2.6.1 is stated to be applied if UE test loop mode 1 is configured for an RB which includes the PDCP protocol layer. However it is not clear with what condition the UE should consider configuration for an RB includes the PDCP layer.

There are three possible conditions.
- The RB is used for PS RAB.
- The RB SETUP message includes the IE "PDCP info".
- The RB SETUP message includes the IE "PDCP info" and the IE "PDCP info" indicates usage of PDCP header and/or header compression.

Test cases specified in 34.123-1 don't seem to assume a RB for PS RAB always configured with PDCP layer. It can therefore be considered that the first interpretation above is not correct.

For example in 7.2.2.4 "Segmentation and Reassembly / 7-bit "Length Indicators" / LI = 0", "Interactive or background / UL:8 DL 8 kbps / PS RAB + UL:3.4 DL 3.4 kbps SRBs for DCCH" is used. The SS sets up loopback mode 1 with the UL RLC SDU size of UM_7_PayloadSize bytes. Then the SS transmits an RLC SDU of size 2 * UM_7_PayloadSize bytes.
In this test case the UE shall apply loop-back mode 1 described in the Figure 5.3.2.6.2.2 (No PDCP layer).

Summary of change: ⌘

It is proposed to specify that "Loopback of PDCP SDUs" is applied if the IE "PDCP info" is included in RB SETUP message, assuming that "transparent PDCP operation" should be tested.

Consequences if not approved: ⌘

UE would not be albe to pass test cases using UE test loop mode 1 with PS RAB.

	Isolated impact analysis: The CR has isolated impact for UE test operation with test loop mode 1. **Impact on test specifications:** No impact is foreseen.

Clauses affected:	⌘	5.3.2.6, 5.3.2.6.1, 5.3.2.6.2			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.3.2.6 UE test loop mode 1 operation

If the configuration of a radio bearer includes the PDCP protocol layer, configured by "PDCP info" (see TS25.331 [5]), then the loop back scheme according to subclause 5.3.2.6.1 shall be performed by the UE for the actual radio bearer.

If the PDCP protocol layer is not used for a radio bearer then the loop back scheme according to subclause 5.3.2.6.2 shall be performed by the UE for the actual radio bearer.

5.3.2.6.1 Loopback of PDCP SDUs

If UE test mode 1 have been selected and the radio bearer setup includes configuration of PDCP protocol layer, configured by "PDCP info" (see TS25.331 [5]), then the following loop back scheme shall be performed by the UE.

After the UE has closed its radio bearer test loop, every PDCP SDU received by the UE on the active radio bearer (downlink) shall be taken from the output of the PDCP service access point (SAP) and be input to the correspondent PDCP SAP and transmitted (uplink).

The UE shall provide for normal PDCP operation.

The PDCP loopback operation is illustrated in figure 5.3.2.6.1.1.

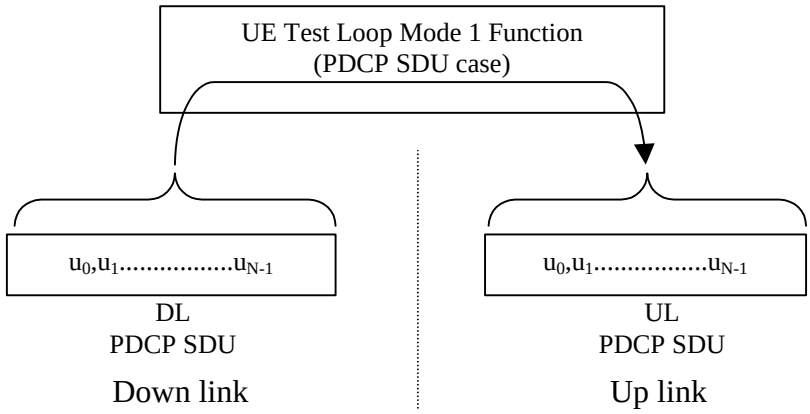


Figure 5.3.2.6.1.1: Loop back of PDCP SDU
(DL RLC SDU size = UL RLC SDU size = N)

5.3.2.6.2 Loopback of RLC SDUs

If UE test mode 1 has been selected and radio bearer setup does not include configuration of PDCP protocol layer ("PDCP info" is not configured. See TS25.331 [5]) then the following loop back scheme shall be performed by the UE.

After the UE has closed its radio bearer test loop, every user data block received by the UE on the active radio bearer (downlink) shall be taken from the output of the RLC service access point (SAP) and be input to the correspondent RLC SAP and transmitted (uplink). The UE reads the UL RLC SDU size parameter from the "LB Setup RB IE#k" parameter associated with the radio bearer, see subclause 6.2.

If no "LB Setup RB IE#k" parameter is associated with the radio bearer then the UE shall use the same UL RLC SDU size as the received DL RLC SDU.

For the case when the "UL RLC SDU size" parameter is set to "0" no data shall be returned.

For the case when the "UL RLC SDU size" parameter is set to the same value as the down link (DL) RLC SDU block size then the complete user data block shall be returned, see figure 5.3.2.6.2.1.

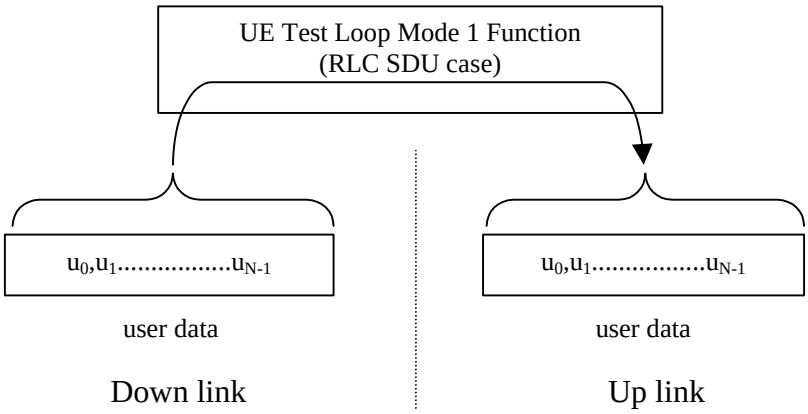


Figure 5.3.2.6.2.1: DL and UL RLC SDU block size equal (DL RLC SDU size = UL RLC SDU size = N)

For the case when the "UL RLC SDU size" parameter is set to a value less than the down link (DL) RLC SDU block size then the UE shall return the first K bits of the received block, where K is the UL block size, see figure 5.3.2.6.2.2.

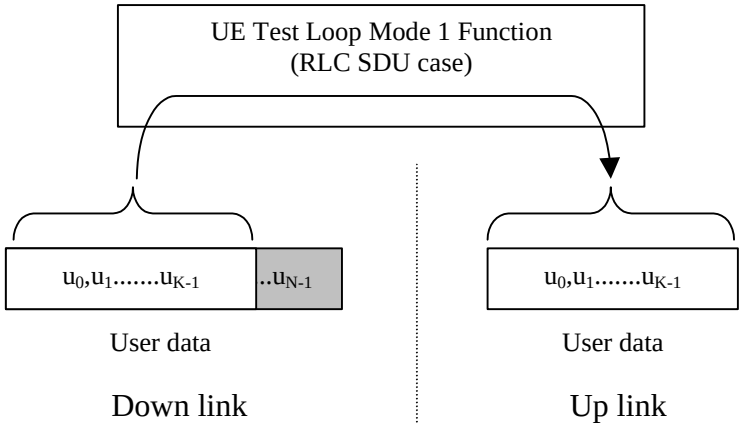


Figure 5.3.2.6.2.2: DL > UL RLC SDU block size (DL RLC SDU size = N, UL RLC SDU size = K)

For the case when the "UL RLC SDU size" parameter is set to a value bigger than the down link (DL) RLC SDU block size then the UE shall pad the UL send block by repeating the received data block until the UL send block has been filled (truncating the last block if necessary), see figure 5.3.2.6.2.3.

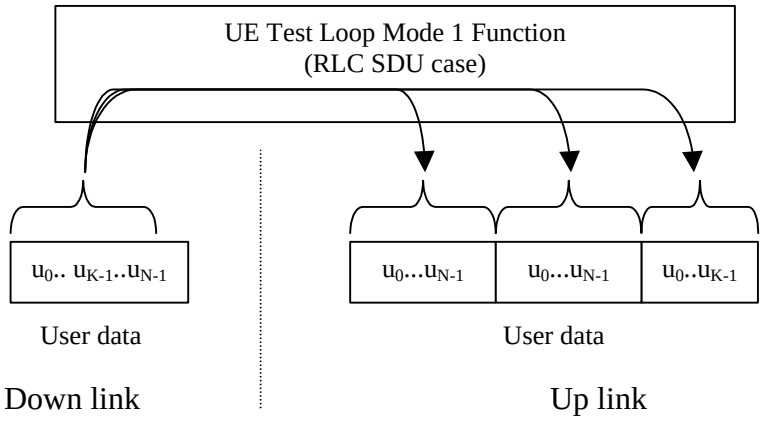


Figure 5.3.2.6.2.3: DL < UL RLC SDU block size (DL RLC SDU size = N, UL RLC SDU size = 2*N + K)

6.2 CLOSE UE TEST LOOP <only for reference>

This message is only sent in the direction SS to UE.

Information Element	Reference	Presence	Format	Length
Protocol discriminator	TS 24.007 [1], subclause 11.2.3.1.1	M	V	½
Skip indicator	TS 24.007 [1], subclause 11.2.3.1.2	M	V	½
Message type		M	V	1
UE test loop mode		M	V	1
UE test loop mode 1 LB setup		C	LV	1-13

where message type is:

8	7	6	5	4	3	2	1	bit no.
0	1	0	0	0	0	0	0	octet 1

where UE test loop mode is:

8	7	6	5	4	3	2	1	bit no.
0	0	0	0	0	0	X2	X1	octet 1

X2=0 and X1=0 then UE test loop mode 1 loop back scheme according to 5.3.2.6 shall be performed by the UE (loopback of RLC SDUs or PDCP SDUs).

X2=0 and X1=1 then UE test loop mode 2 loop back scheme according to 5.3.2.7 shall be performed by the UE (loopback of transport block data and CRC bits).

For backward compatibility reason, the bit 3 of octet 1 shall not be used and shall always be set to zero.

where UE test loop mode 1 LB setup is:

8	7	6	5	4	3	2	1	
Length of UE test loop mode 1 LB setup IE								Octet 1
LB setup list								Octet 2 Octet N*3+1

N is the number of LB entities in the LB setup list and is less than or equal to 4.

where LB setup list is:

8	7	6	5	4	3	2	1	
LB setup RB IE#1								Octet 2 Octet 3 Octet 4
LB setup RB IE#2								Octet 5 Octet 6 Octet 7
…								
LB setup RB IE#N								Octet N*3-1 Octet N*3 Octet N*3+1

where LB Setup RB IE#k is:

8	7	6	5	4	3	2	1	bit no.
Z15	Z14	Z13	Z12	Z11	Z10	Z9	Z8	octet 1
Z7	Z6	Z5	Z4	Z3	Z2	Z1	Z0	octet 2
Reserved			Q4	Q3	Q2	Q1	Q0	octet 3

Z15..Z0 = Uplink RLC SDU size in bits 0.. 65535 (binary coded, Z15 is most significant bit and Z0 least significant bit), see Note 1.

Q4..Q0 = RB identity number, 5..32 (binary coded, Q4 is most significant bit and Q0 least significant bit), where RB identity identifies the radio bearer, see [5] TS 25.331. The range is limited to 5..32 due to RB0 to RB4 are reserved for signalling radio bearers.

NOTE: The parameter UL RLC SDU size is only applicable for UE test loop mode 1 and for radio bearers not using the PDCP protocol layer, see subclause 5.3.2.6.2. The UE capability for the parameter UL RLC SDU size is stated by the UE manufacturer as an Implementation Conformations Statement (ICS) as defined in TS 34.123-2 [17], subclause A.4.3.1 table A.13. The UE Total RLC AM buffer size according to the UE Radio Access Capabilities defined in TS 25.306 [18] shall not be exceeded.

3GPP TSG–RAN2#43 **R2-041873**
Prague, Czech Republic, 16th – 20th August 2004

CR-Form-v7

CHANGE REQUEST

⌘ **34.109** **CR** **031** ⌘**rev** **1** ⌘ Current version: **3.9.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Addition of RESET UE POSITIONING STORED INFORMATION message
Source:	⌘	RAN WG2
Work item code:	⌘	TEI
Date:	⌘	15/08/04
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Without this information the UE may store previously received UE POSITIONING information interfering with the test procedures
Summary of change:	⌘	The RESET UE POSITIONING STORED INFORMATION message has been added and behaviour defined for UE when receiving this message from the SS. If the message is received containing the IE AGPS, the behaviour is: ▪ Discard any internally stored GPS reference time, reference position, and any other aiding data obtained or derived during the previous test instance (e.g. expected ranges and Doppler).
Consequences if not approved:	⌘	Test procedures may not work correctly

Clauses affected:	⌘	5.4, 6.10

		Y	N		
Other specs Affected:	⌘		X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	

Other comments:	⌘	The procedure was updated in R4-040465

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm.
Below is a brief summary:

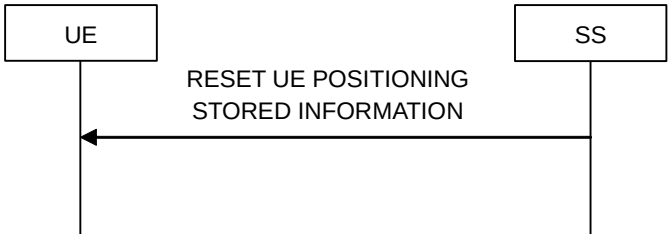
1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.4 UE Positioning test mode procedures

5.4.1 Reset UE Positioning Stored Information



5.4.1.1 General

The SS uses the reset UE positioning stored information procedure to command the UE to reset the already acquired UE POSITIONING information in preparation for subsequent test procedures.

5.2.1.2 Initiation

The SS requests the UE to reset the stored UE positioning information mode by transmitting a RESET UE POSITIONING STORED INFORMATION message.

5.2.1.3 Reception of RESET UE POSITIONING STORED INFORMATION message by UE

When UE receives RESET UE POSITIONING STORED INFORMATION message then the UE shall:

1> If the IE “UE Positioning Technology” has the value ‘AGPS’

2> discard any stored GPS reference time, reference position, and any other aiding data obtained or derived during the previous test instance (e.g. expected ranges and Doppler).

1> otherwise;

2> ignore the message.

Next Modified Section

6.10 RESET UE POSITIONING STORED INFORMATION

This message is only sent in the direction SS to UE.

Information Element	Reference	Presence	Format	Length
Protocol discriminator	TS 24.007 [1], subclause 11.2.3.1.1	M	V	½
Skip indicator	TS 24.007 [1], subclause 11.2.3.1.2	M	V	½
Message type		M	V	1
UE Positioning Technology		M	V	1

where message type is:

8	7	6	5	4	3	2	1	bit no.
0	1	0	0	1	0	0	0	octet 1

where UE positioning technology is a single octet IE:

8	7	6	5	4	3	2	1	bit no.
UE positioning Technology								octet 1

UE Positioning Technology value

Bits
8 7 6 5 4 3 2 1
0 0 0 0 0 0 0 0 AGPS

All other cause values are reserved for future use

3GPP TSG–RAN2#43 **R2-041874**
Prague, Czech Republic, 16th – 20th August 2004

CR-Form-v7

CHANGE REQUEST

⌘ **34.109** **CR** **032** ⌘ **rev** **1** ⌘ Current version: **4.5.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Addition of RESET UE POSITIONING STORED INFORMATION message
Source:	⌘	RAN WG2
Work item code:	⌘	TEI
Date:	⌘	15/08/04
Category:	⌘	**A**
Release:	⌘	Rel-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Without this information the UE may store previously received UE POSITIONING information interfering with the test procedures
Summary of change:	⌘	The RESET UE POSITIONING STORED INFORMATION message has been added and behaviour defined for UE when receiving this message from the SS. If the message is received containing the IE AGPS, the behaviour is: ▪ Discard any internally stored GPS reference time, reference position, and any other aiding data obtained or derived during the previous test instance (e.g. expected ranges and Doppler).
Consequences if not approved:	⌘	Test procedures may not work correctly

Clauses affected:	⌘	5.4, 6.10

Other specs Affected:	⌘	Y	N		⌘
			X	Other core specifications	
			X	Test specifications	
			X	O&M Specifications	

Other comments:	⌘	The procedure was updated in R4-040465

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm.
Below is a brief summary:

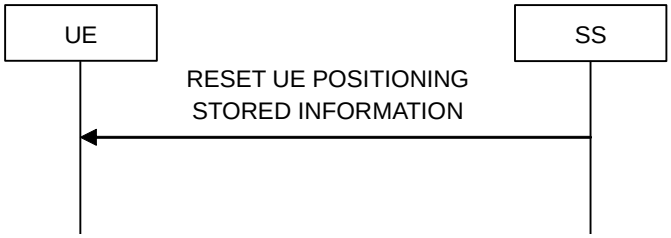
1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.4 UE Positioning test mode procedures

5.4.1 Reset UE Positioning Stored Information



5.4.1.1 General

The SS uses the reset UE positioning stored information procedure to command the UE to reset the already acquired UE POSITIONING information in preparation for subsequent test procedures.

5.2.1.2 Initiation

The SS requests the UE to reset the stored UE positioning information mode by transmitting a RESET UE POSITIONING STORED INFORMATION message.

5.2.1.3 Reception of RESET UE POSITIONING STORED INFORMATION message by UE

When UE receives RESET UE POSITIONING STORED INFORMATION message then the UE shall:

1> If the IE “UE Positioning Technology” has the value ‘AGPS’

2> discard any stored GPS reference time, reference position, and any other aiding data obtained or derived during the previous test instance (e.g. expected ranges and Doppler).

1> otherwise;

2> ignore the message.

Next Modified Section

6.10 RESET UE POSITIONING STORED INFORMATION

This message is only sent in the direction SS to UE.

Information Element	Reference	Presence	Format	Length
Protocol discriminator	TS 24.007 [1], subclause 11.2.3.1.1	M	V	½
Skip indicator	TS 24.007 [1], subclause 11.2.3.1.2	M	V	½
Message type		M	V	1
UE Positioning Technology		M	V	1

where message type is:

8	7	6	5	4	3	2	1	bit no.
0	1	0	0	1	0	0	0	octet 1

where UE positioning technology is a single octet IE:

8	7	6	5	4	3	2	1	bit no.
UE positioning Technology								octet 1

UE Positioning Technology value

Bits
8 7 6 5 4 3 2 1
0 0 0 0 0 0 0 0 AGPS

All other cause values are reserved for future use

3GPP TSG–RAN2#43 **R2-041875**
Prague, Czech Republic, 16th – 20th August 2004

CR-Form-v7

CHANGE REQUEST

⌘ **34.109** **CR** **033** ⌘ **rev** **1** ⌘ Current version: **5.3.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Addition of RESET UE POSITIONING STORED INFORMATION message
Source:	⌘	RAN WG2
Work item code:	⌘	TEI
Date:	⌘	15/08/04
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Without this information the UE may store previously received UE POSITIONING information interfering with the test procedures
Summary of change:	⌘	The RESET UE POSITIONING STORED INFORMATION message has been added and behaviour defined for UE when receiving this message from the SS. If the message is received containing the IE AGPS, the behaviour is: ▪ Discard any internally stored GPS reference time, reference position, and any other aiding data obtained or derived during the previous test instance (e.g. expected ranges and Doppler).
Consequences if not approved:	⌘	Test procedures may not work correctly

Clauses affected:	⌘	5.4, 6.10

Other specs Affected:	⌘	Y	N		⌘
			X	Other core specifications	
			X	Test specifications	
			X	O&M Specifications	

Other comments:	⌘	The procedure was updated in R4-040465

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm.
Below is a brief summary:

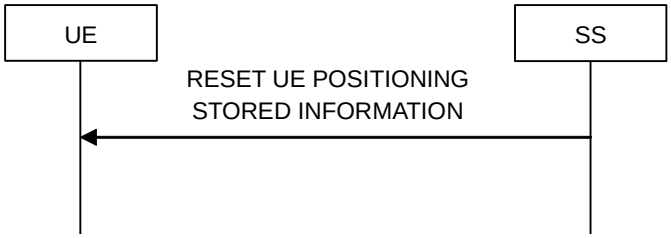
1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.4 UE Positioning test mode procedures

5.4.1 Reset UE Positioning Stored Information



5.4.1.1 General

The SS uses the reset UE positioning stored information procedure to command the UE to reset the already acquired UE POSITIONING information in preparation for subsequent test procedures.

5.2.1.2 Initiation

The SS requests the UE to reset the stored UE positioning information mode by transmitting a RESET UE POSITIONING STORED INFORMATION message.

5.2.1.3 Reception of RESET UE POSITIONING STORED INFORMATION message by UE

When UE receives RESET UE POSITIONING STORED INFORMATION message then the UE shall:

1> If the IE “UE Positioning Technology” has the value ‘AGPS’

2> discard any stored GPS reference time, reference position, and any other aiding data obtained or derived during the previous test instance (e.g. expected ranges and Doppler).

1> otherwise;

2> ignore the message.

Next Modified Section

6.10 RESET UE POSITIONING STORED INFORMATION

This message is only sent in the direction SS to UE.

Information Element	Reference	Presence	Format	Length
Protocol discriminator	TS 24.007 [1], subclause 11.2.3.1.1	M	V	½
Skip indicator	TS 24.007 [1], subclause 11.2.3.1.2	M	V	½
Message type		M	V	1
UE Positioning Technology		M	V	1

where message type is:

8	7	6	5	4	3	2	1	bit no.
0	1	0	0	1	0	0	0	octet 1

where UE positioning technology is a single octet IE:

8	7	6	5	4	3	2	1	bit no.
UE positioning Technology								octet 1

UE Positioning Technology value

Bits
8 7 6 5 4 3 2 1
0 0 0 0 0 0 0 0 AGPS

All other cause values are reserved for future use