TSG-RAN Working Group 1 meeting #12 **TSGR1#12(00)0585**
Seoul, Korea
April 10 – 13, 2000

Agenda item: AH 4 / 8

Source: Nokia

Title: CR 25.212-066rev1, CR 25.215-057: corrections to table 9

Document for: Decision

Table 9 of TS 25.212 has some ambiguities:

- Spreading factor 512 is not mentioned for frame type B
- gap lengths are not covering all cases
- UL and DL parameters are not separated

Except of the last column it has only informative value and combines information already given before.

In order to improve the quality of the specifications, the following is proposed:

- Table 9 is split into 3 separate tables for UL, DL and UL+DL compressed mode, moved into an informative annex and the gap lengths are recalculated
- The information of the last column is copied to the compressed mode limitations section of TS 25.215

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Document R1-00-0585
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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25.212	**CR**	**066rev1**	Current Version:	3.2.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to: RAN #8 *list expected approval meeting # here ↑*

for approval [X] for information [ ]

strategic [ ] non-strategic [ ] *(for SMG use only)*

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [ ] UTRAN / Radio [X] Core Network [ ]

Source: Nokia **Date:** 12-Apr-00

Subject: Section 4.4.5 and table 9 is moved to informative annex.

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	[X]
A	Corresponds to a correction in an earlier release	[ ]
B	Addition of feature	[ ]
C	Functional modification of feature	[ ]
D	Editorial modification	[ ]

Release:

Phase 2	[ ]
Release 96	[ ]
Release 97	[ ]
Release 98	[ ]
Release 99	[X]
Release 00	[ ]

Reason for change: Table 9 contains some ambiguities which are corrected. Most of the table is informative, thus it is moved to an annex.

Clauses affected: 4.4.5 and Annex B

Other specs affected:

Other 3G core specifications	[X]	→ List of CRs:	25.215-057
Other GSM core specifications	[ ]	→ List of CRs:	
MS test specifications	[ ]	→ List of CRs:	
BSS test specifications	[ ]	→ List of CRs:	
O&M specifications	[ ]	→ List of CRs:	

Other comments:

4.4.5 Parameters for downlink compressed mode

Table 9 shows the detailed parameters for each transmission gap length for the different transmission time reduction methods.

Table 9: Parameters for compressed mode

TGL	Frame Type	Spreading Factor	Idle length [ms]	Transmission time Reduction method	Idle frame Combining
3	A	512 – 4	1.73-1.99	Puncturing, Spreading factor division by 2 or Higher layer scheduling	(S) (D) =(1,2) or (2,1)
	B	256 - 4	1.60-1.86		
4	A	512 - 4	2.40-2.66		(S) (D) =(1,3), (2,2) or (3,1)
	B	256 - 4	2.27-2.53		
5	A	512 - 4	3.07-3.33		(S) (D) = (1,4), (2,3), (3, 2) or (4,1)
	B	256 - 4	2.94-3.20		
7	A	512 -4	4.40-4.66		(S) (D)=(1,6), (2,5), (3,4), (4,3), (5,2) or (6,1)
	B	256 – 4	4.27-4.53		
10	A	512 - 4	6.40-6.66		(D)=(3,7), (4,6), (5,5), (6,4) or (7,3)
	B	256 – 4	6.27-6.53		
14	A	512 - 4	9.07-9.33		(D) =(7,7)
	B	256 – 4	8.93-9.19		

(S): Single-frame method as shown in figure 14 (1).

(D): Double-frame method as shown in figure 14 (2). (x,y) indicates x: the number of idle slots in the first frame, y: the number of idle slots in the second frame.

NOTE: Compressed mode by spreading factor reduction is not supported when SF=4 is used in normal mode.

Annex B (informative): Compressed mode idle lengths

The tables 9-11 show the resulting idle lengths for different transmission gap lengths, UL/DL modes and DL frame types. The idle lengths given are calculated purely from the slot and frame structures and the UL/DL offset. They do not contain margins for e.g. synthesizer switching.

B.1 Idle lengths for DL, UL and DL+UL compressed mode

Table 9: Parameters for DL compressed mode

TGL	DL Frame Type	Spreading Factor	Idle length [ms]	Transmission time Reduction method	Idle frame Combining
3	A	512 – 4	1.73 – 1.99	Puncturing, Spreading factor division by 2 or Higher layer scheduling	(S) (D) =(1,2) or (2,1)
	B		1.60 – 1.86		
4	A		2.40 – 2.66		(S) (D) =(1,3), (2,2) or (3,1)
	B		2.27 – 2.53		
5	A		3.07 – 3.33		(S) (D) = (1,4), (2,3), (3, 2) or (4,1)
	B		2.93 – 3.19		
7	A		4.40 – 4.66		(S) (D)=(1,6), (2,5), (3,4), (4,3), (5,2) or (6,1)
	B		4.27 – 4.53		
10	A		6.40 – 6.66		(D)=(3,7), (4,6), (5,5), (6,4) or (7,3)
	B		6.27 – 6.53		
14	A		9.07 – 9.33		(D) =(7,7)
	B		8.93 – 9.19		

Table 10: Parameters for UL compressed mode

TGL	Spreading Factor	Idle length [ms]	Transmission time Reduction method	Idle frame Combining
3	256 – 4	2.00	Spreading factor division by 2 or Higher layer scheduling	(S) (D) =(1,2) or (2,1)
4		2.67		(S) (D) =(1,3), (2,2) or (3,1)
5		3.33		(S) (D) = (1,4), (2,3), (3, 2) or (4,1)
7		4.67		(S) (D)=(1,6), (2,5), (3,4), (4,3), (5,2) or (6,1)
10		6.67		(D)=(3,7), (4,6), (5,5), (6,4) or (7,3)
14		9.33		(D) =(7,7)

Table 11: Parameters for combined UL/DL compressed mode

TGL	DL Frame Type	Spreading Factor	Idle length [ms]	Transmission time Reduction method	Idle frame Combining
3	A or B	DL: 512 – 4 UL: 256 – 4	1.47 – 1.73	DL: Puncturing, Spreading factor division by 2 or Higher layer scheduling UL: Spreading factor division by 2 or Higher layer scheduling	(S) (D) =(1,2) or (2,1)
4			2.13 – 2.39		(S) (D) =(1,3), (2,2) or (3,1)
5			2.80 – 3.06		(S) (D) = (1,4), (2,3), (3, 2) or (4,1)
7			4.13 – 4.39		(S) (D)=(1,6), (2,5), (3,4), (4,3), (5,2) or (6,1)
10			6.13 – 6.39		(D)=(3,7), (4,6), (5,5), (6,4) or (7,3)
14			8.80 – 9.06		(D) =(7,7)

(S): Single-frame method as shown in figure 14 (1).

(D): Double-frame method as shown in figure 14 (2). (x,y) indicates x: the number of idle slots in the first frame, y: the number of idle slots in the second frame.

NOTE: Compressed mode by spreading factor reduction is not supported when SF=4 is used in normal mode

Annex ~~B~~ C (informative): Change history

3GPP/SMG Meeting #12
Seoul, Korea, 10-13 April 2000

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e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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25.215	CR	057	Current Version:	3.2.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	RAN #8	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: (U)SIM [ ] ME [ ] UTRAN / Radio [X] Core Network [ ]
(at least one should be marked with an X)

Source: Nokia **Date:** 12-Apr-00

Subject: Transfer of information from TS 25.212 table 9 to TS 25.215

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: The column of TS 25.212 table 9 indicating single/double frame compressed mode combinations is moved to TS 25.215 section 6.1.1.3.

Clauses affected: 6.1.1.3

Other specs affected:

Other 3G core specifications	X	→ List of CRs:	25.212-060rev1
Other GSM core specifications		→ List of CRs:	
MS test specifications		→ List of CRs:	
BSS test specifications		→ List of CRs:	
O&M specifications		→ List of CRs:	

Other comments:

6.1.1.3 Parameterisation limitations

In the table below the supported values for the TGL1 and TGL2 parameters are shown.

Measurements performed on	Supported TGL1 values, when TGL2 is not set	Supported TGL1 and TGL2 values when both are set (TGL1, TGL2)
FDD inter-frequency cell	7, 14	(10, 5)
TDD cell	4	-
GSM cell	3, 4, 7, 10, 14	-

Multi-mode terminals shall support all TGL1 and TGL2 values for the supported modes.

Depending on the starting slot and length of the gap, it can be placed within one single frame (single-frame method) or it can overlap two frames (double-frame method). The following table shows the combinations that are supported:

TGL	Idle frame combining
3	(S) (D) = (1,2) or (2,1)
4	(S) (D) = (1,3), (2,2) or (3,1)
5	(S) (D) = (1,4), (2,3), (3, 2) or (4,1)
7	(S) (D) = (1,6), (2,5), (3,4), (4,3), (5,2) or (6,1)
10	(D) = (3,7), (4,6), (5,5), (6,4) or (7,3)
14	(D) = (7,7)

The notation used within the table is:

(S): Single-frame method as specified in TS 25.212

(D): Double-frame method as specified in TS 25.212: (x,y) indicates x: the number of idle slots in the first frame, y: the number of idle slots in the second frame.

Further limitations on the transmission gap position within its frame(s) are given in TS 25.212.