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## Clarifications to permutations based on IDCell parameter

### 1 Statement of the problem

In sections 8.4.6.1.2.1.1 and 8.4.9.4.1 the IDcell parameter is used for several different permutations, which are not connected or dependent on each other. In addition, the IDcell parameter may sometime be defined by the frame preamble, and some other times by the Zone\_Switch\_IE().

### 2 Proposed solution

Clarify for each permutation what is the correct IDCell to use, and at one instance change the parameter name to reduce some of the overloading it carries.

### 3 Specific text changes

[1. On page 526, line 25, modify the text in the table as follows:]

"Syntax – Use all SC [broadcast](#) indicator

Size - 1 bit

Notes - 0 = ~~Do not~~ use all subchannels [in a non broadcast manner](#)

1 = Use all subchannels [in a broadcast manner](#)"

[Also below the table add the following text:]

#### "Use All SC [broadcast](#) indicator

When set, this indicator indicates transmission on all available subchannels [for broadcast purposes \(macro-diversity\)](#). ~~For FUSC permutation,~~ [Otherwise, it indicates normal](#) transmission ~~is always~~ on all subchannels."

[2. On page 526, line 26, insert a new line to the table with the following attributes:]

"Syntax - Cover sequence override

Size - 1 bit

Notes - 0 = No override, 1=override by IDCell in this IE"

[Also below the table add the following text:]

#### "Cover sequence override

When this bit is set to 0, the cover sequence (as per the permutation defined in section 8.4.9.4.1) is initialized based on the IDCell indicated by the frame preamble (except where 'Use all SC broadcast indicator=1'). When this bit is set to 1, the cover sequence is initialized based on the IDCell indicated by the Zone\_Switch\_IE()"

[3. On page 619, line 52, modify the text as follows:]

"b10..b6 = Five least significant bits of IDcell as indicated by the frame preamble [\(or by the Zone\\_Switch\\_IE\(\), when 'Cover sequence override=1'\)](#), except for zones marked by 'Use all SC [broadcast](#) indicator=1', where these bits shall be set to 1, in the downlink. Five least significant bits of UL\_IDcell in the uplink.

b5..b4 = Set to the segment number + 1 as indicated by the frame preamble [\(or by the two ls bits of IDcell of the Zone\\_Switch\\_IE\(\), when 'Cover sequence override=1'\)](#), except for zones marked by 'Use all [broadcast](#) SC indicator=1', where these bits shall be set to 1."

[4. On page 567, line 26, modify the text as follows:]

"2) Renumbering the physical clusters into logical clusters using the following formula:  $\text{LogicalCluster} = \text{RenumberingSequence}(\text{PhysicalCluster} + 13 * \text{IDcell} \# \text{PUSC\_PERM\_BASE}) \bmod 120$  In the first PUSC zone of the downlink (first downlink zone) the default used ~~IDcell~~ [PUSC\\_PERM\\_BASE](#) is 0, otherwise, it is equal to the IDCell parameter in the Zone\_Switch\_IE()."

[5. On page 567, line 36, modify the text as follows:]

"4) Allocating carriers to subchannel in each major group is performed by first allocating the pilot carriers within each cluster, and then taking all remaining data carriers within the symbol and using the same procedure described in 8.4.6.1.2.2.2 (with the parameters from Table 308, using the PermutationBase appropriate for each major group, PermutationBase12 for even numbered major groups and PermutationBase8 for odd numbered major groups) to partition the subcarriers into subchannels containing 24 data subcarriers in each symbol. Note that IDcell used for the first PUSC zone is ~~0~~ the preamble IDcell, subsequent PUSC zones shall use the IDCell parameter in the Zone\_Switch\_IE()."