**TSG-RAN Working Group 1 meeting #18**   *TSGR1(01)0099*

Boston, USA, January 15-19, 2001

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| **Agenda Item:** | AH21 |
| **Source:** | Siemens AG |
| **To:** | TSG RAN WG1 |
| **Title:** | Changes to the physical random access channel (PRACH) for 1.28Mcps TDD |
| **Document for:** | Decision |

# 1.  Summary

Because of the RACH procedure specified in the working CR of TS25.221 the description of the PRACH in the working CR of TS25.221 has to be changed to allow SF 4 for the PRACH. As well the time slot formats have been amended.

# 2.  Proposal

It's proposed to discuss and include the following text proposal into the clause 6.3.4 'The physical random access channel (PRACH)' of working CR of TS25.221.

-------------------------------- Changes to working CR of 25.221 begin ------------------------------

# 6.3.43 The physical random access channel (PRACH)

The RACH is mapped onto one or more uplink physical random access channels (PRACH). In such a way the capacity of RACH can be flexibly scaled depending on the operators need.

## 6.3.43.1 PRACH Spreading

The uplink PRACH uses either spreading factor SF=16 or SF=8 or SF=4 as described in subclause 6.2.1.1. The set of admissible spreading codes for use on the PRACH and the associated spreading factors are broadcast on the BCH (within the RACH configuration parameters on the BCH).

~~The uplink PRACH uses either spreading factor SF=16 or SF=8 as described in subclause of 'The Random Access Channel (RACH)'. The PRACH configuration (time slot number and assigned spreading codes) is broadcast through the BCH.~~

## 6.3.43.2 PRACH Burst Format

The burst format as described in section 6.2.2 is used for the PRACH.

## 6.3.43.3 PRACH Training sequences

The training sequences, i.e. midambles, of different users active in the same time slot are time shifted versions of a single periodic basic code. The basic midamble codes as described in subclause about midamble generation are used for PRACH.

## 6.3.43.4 PRACH timeslot formats

The PRACH uses the following time slot formats taken form the uplink timeslot formats described in sub-clause 6.2.2.4.1.2:

| Spreading Factor | Slot Format # |
|---|---|
| 16 | 0 |
| 8 | 10 |
| 4 | 25 |

## 6.3.43.5 Association between Training Sequences and Channelisation Codes

The association between training sequences and channelisation codes of PRACH in the 1.28McpsTDD is same as that of the DPCH.

---------------------------------- Changes to working CR of 25.221 end -------------------------------