

Agenda Item: AH21
Source: CWTS
To: TSG RAN WG1
Title: Common transport channel in 1.28Mcps TDD
Document for: Decision

1. Summary

Some features of the common transport channels in 1.28Mcps TDD are different to that in the 3.84Mcps TDD.

2. Introduction and comparison with 3.84Mcps TDD

In 1.28Mcps TDD, the BCH is mapped only onto the P-CCPCHs (Primary Common Control Physical Channel) The UE uses the DwPTS sequence and its relative phase with respect to the P-CCPCHs midamble sequences to find the position of the MIB in the multi-frame and the start position of the interleaving period.

3. Proposal

We propose to modify the following paragraphs in the working CR for TS25.221 as the description of the common transport channel of the 1.28Mcps TDD.

8.2 Common Transport Channels

8.2.1 The Broadcast Channel (BCH)

In 1.28Mcps TDD, there are two P-CCPCHs, P-CCPCH 1 and P-CCPCH 2 which are mapped onto timeslot#0 using the channelisation codes $C_{Q=16}^{(k=1)}$ and $C_{Q=16}^{(k=2)}$ with spreading factor 16. The BCH is mapped onto the P-CCPCH1+P-CCPCH2.

The position of the MIB of the BCH in the P-CCPCHs is indicated by the DwPTS sequence and its relative phase with respect to the P-CCPCHs midamble sequences. Each DwPTS can have 4 different phases and can be independently assigned by the Node B. One special combination of the phase differences of the DwPTS with respect to the P-CCPCH midamble can indicate the position of the MIB in the multi-frame and the start position of the interleaving period.

8.2.3 The Forward Channel (FACH)

The FACH is mapped onto one or several S-CCPCHs. The location of the FACH is indicated on the BCH and both, capacity and location can be changed, if required. FACH may or may not be power controlled.

8.2.4 The Random Access Channel (RACH)

The RACH has intraslot interleaving only and is mapped onto PRACH. More than one slot per frame may be administered for the PRACH. The location of slots allocated to PRACH is broadcast on the BCH. The uplink sync codes (SYNC1 sequences) used by the UEs for UL synchronisation have a well known association with the P-RACHs, as broadcast by the BCH. On the P-RACH, both power control and uplink synchronisation control are used. The burst type used on the P-RACH is the same as that for a dedicated physical channel.