

TSG RAN WG 2#4
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Agenda item: 6.7
Source: Golden Bridge Technology
Title: Request for CPCH-related modification of S25.302
Document for: Approval

Introduction

New Transport Channels

The CPCH is a new transport channel since it has a new MAC, RLC and RRC layer procedures as compared to RACH in the uplink direction.

The CPCH Control Channel is also a new transport channel since it operates at a fixed low rate of 8 kbps and contains TPC, Pilot and signaling only. There is no Rate information included in the Physical Channel.

Insertions into S2.02

Insertion into section 6.1 Uplink Models

Current text: “The model for the RACH shows that RACH is the only common type transport channel in the uplink. RACHs are always mapped one-to-one onto the physical channels, i.e, there is no physical layer multiplexing of RACH. Service multiplexing is handled by the MAC layer.”

Replace with: “The model for the RACH shows that RACH is a common type transport channel in the uplink. RACHs are always mapped one-to-one onto the physical channels, i.e, there is no physical layer multiplexing of RACH. Service multiplexing is handled by the MAC layer. The CPCH channel which is another common type transport channel has a physical layer model as shown in the Figures 2 and 3.”

6.1 Uplink Models

The following figure needs to be appended with a figure for CPCH. The DCH model is appropriate for CPCH. A Figure can be added with the heading CPCH model and three CPCH streams going into the coding and multiplexing block.

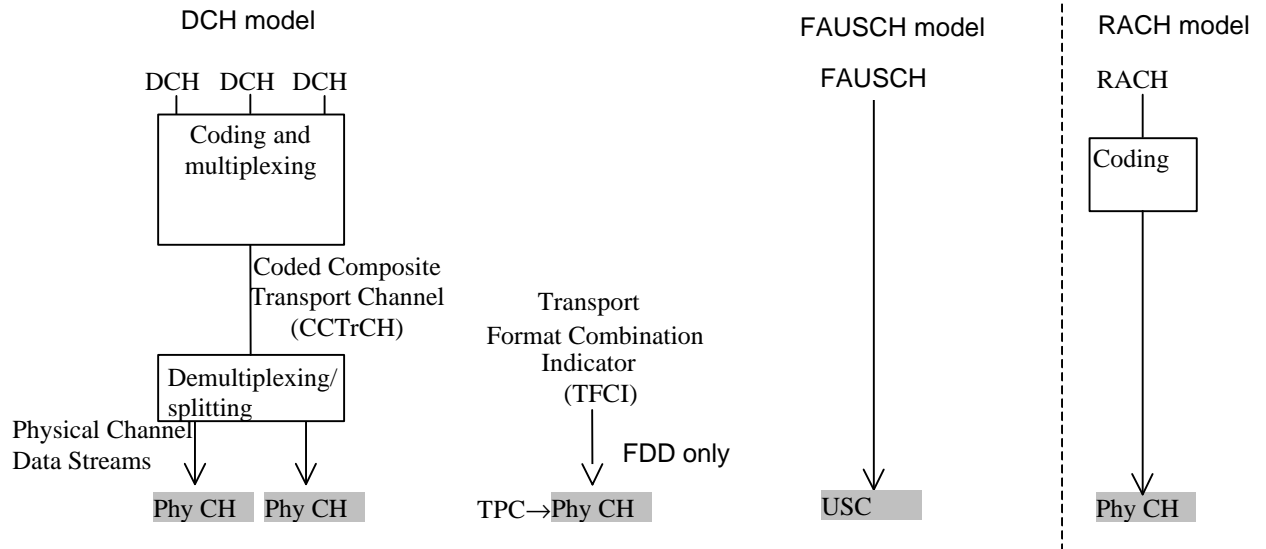
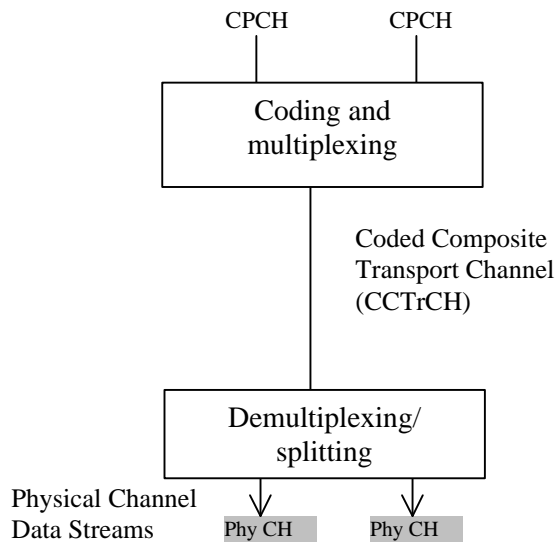


Figure 1: Model of the UE's physical layer – uplink

CPCH model



1.1 To be added to Figure 2. Model of the UE's physical layer-uplink

6.2 Downlink models

The following figure needs to be appended with a figure for CPCH Control Channel (CPCCH) in the Downlink. The left hand side figures are appropriate for the CPCCH.

There is a TPC stream included for this channel as a differentiating factor.

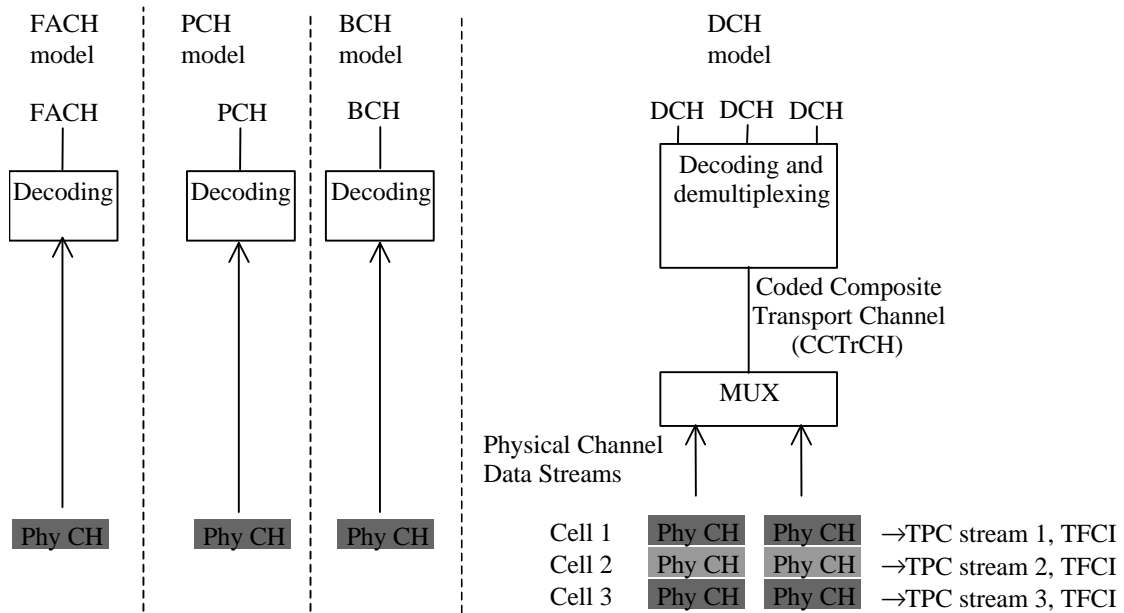
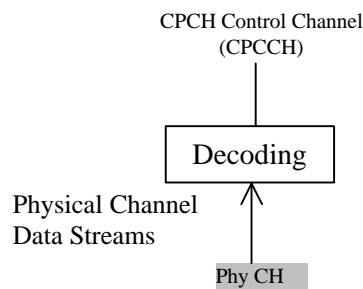


Figure 2: Model of the UE's physical layer – downlink FDD mode

CPCH model



To be added to Figure 3: Model of the UE's physical layer – downlink FDD mode

Insertion into Section 7.2

10. CPCH is characterized by:

FDD Only
Uplink Only
TPC, Pilot, TFCI
Collision detection and resolution
Open Loop Power Estimate for Preamble Ramp-up
Closed Loop Power Control on the message part
CPCH is paired with CPCCH

11. CPCCH (Common Packet Control Channel) is characterized by:

This channel is used for controlling the UCPCH in the uplink.

FDD Only
Downlink only
Pilot, TPC and Signaling information only = DPCCH Physical Channel
No Rate Information (RI)
It operates at 8 kbps with SF=512
Inherent addressing to the UE currently accessing the CPCH UL
CPCCH is paired with CPCH