

Agenda Item: Ad Hoc 1
Source: Alcatel, Siemens
Title: **Additional Examples for Technical Report:**
"R1.04 – Channel Coding and Multiplexing Examples"
Document for:

Introduction

At WG1 meeting No.9 in Dresden, the newly created Technical Report "R1.04 – Channel Coding and Multiplexing Examples" was presented. Regarding TDD mode, discussions revealed the request for some additional examples. The rationale behind is to show that 64 kbps and 128 kbps data services may be supported with single code transmission as well, and it is not mandated for an UE to use multicode for such services.

Proposal

We propose to include the additional service mapping examples into TR R1.04, as shown in the text proposal below by using revision marks.

4.2.2.2.3 Example for multiplexing of 64/128/384 kbps packet data and 2.4 kbps data

<Note: This example can be applied to multiplexing 64/128/384 kbps packet data and DCCH.>

Table 1 shows example of physical channel parameters for multiplexing of 64/128/384 kbps packet data and 2.4 kbps data.

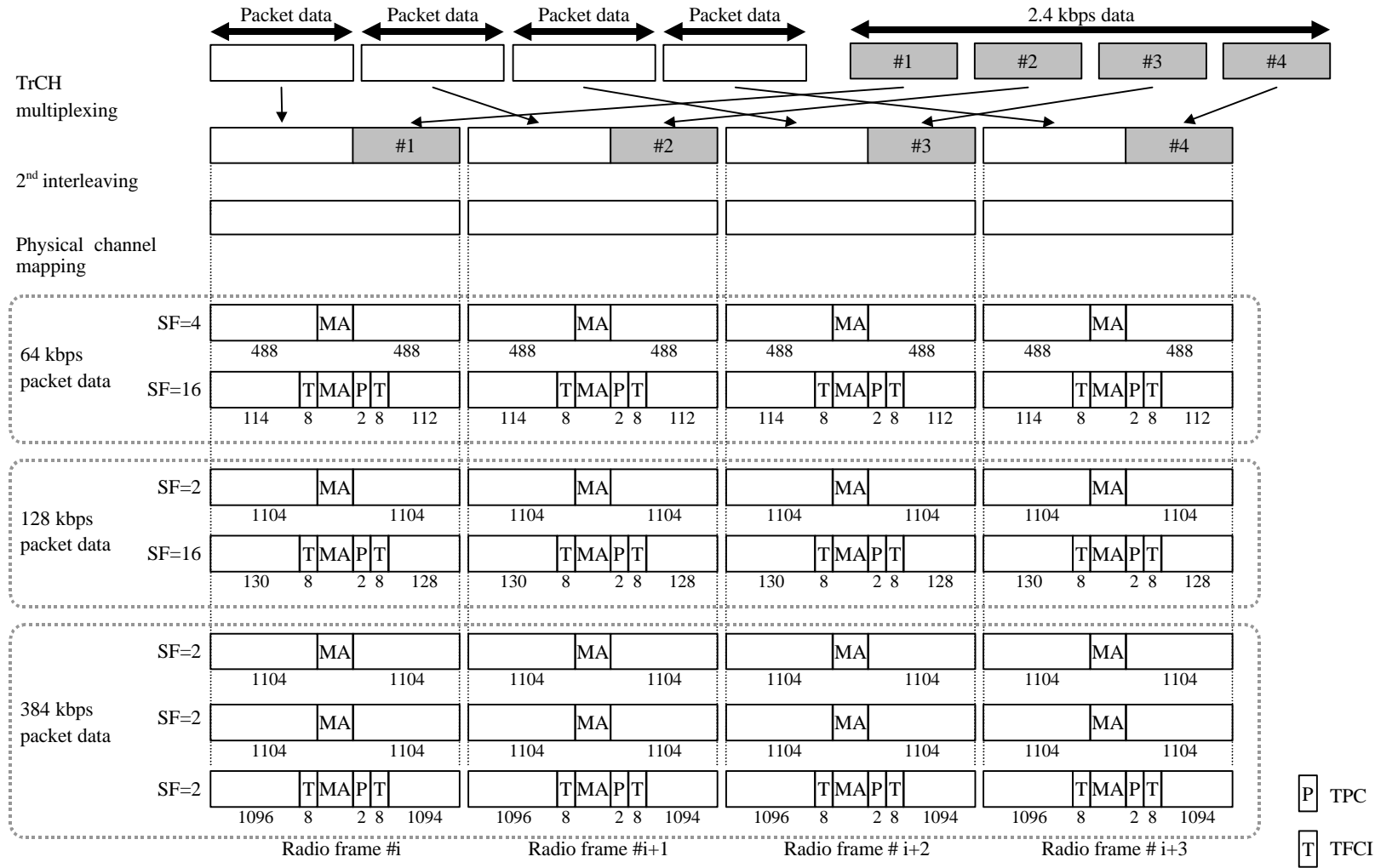


Figure 1: Channel coding and multiplexing example for multiplexing of 64/128/384 kbps packet data and 2.4 kbps data

Table 1: Physical channel parameters for multiplexing of 64/128/384 kbps packet data and 2.4 kbps data

Midamble	64 kbps	512 chips
	128 & 384 kbps	256 chips
Multi codes & time slots	64 kbps	{(SF16 x 1 code) + (SF4 x 1 code)} x 1 time slot
	128 kbps	{(SF16 x 1 code) + (SF2 x 1 code)} x 1 time slot
	384 kbps	SF2 x 1 code x 3 time slot
TFCI	16 bits per user	
TPC	2 bit	

Note: As an additional example, physical channels can also be mapped without using multicode per timeslot, e.g.

for 64kbps: (SF16 x 1 code x 1 timeslot) + (SF4x 1 code x 1 timeslot)

for 64kbps: (SF2 x 1 code x 1 timeslot)

for 128kbps: (SF16 x 1 code x 1 timeslot) + (SF2x 1 code x 1 timeslot)

for 128kbps: (SF1 x 1 code x 1 timeslot)

4.2.2.2.4 Example for multiplexing of 64 kbps data and 2.4 kbps data

<Note: This example can be applied to multiplexing ISDNs data and DCCH.>

Table 2 shows example of physical channel parameters for multiplexing of 64/128/384 kbps packet data and 2.4 kbps data.

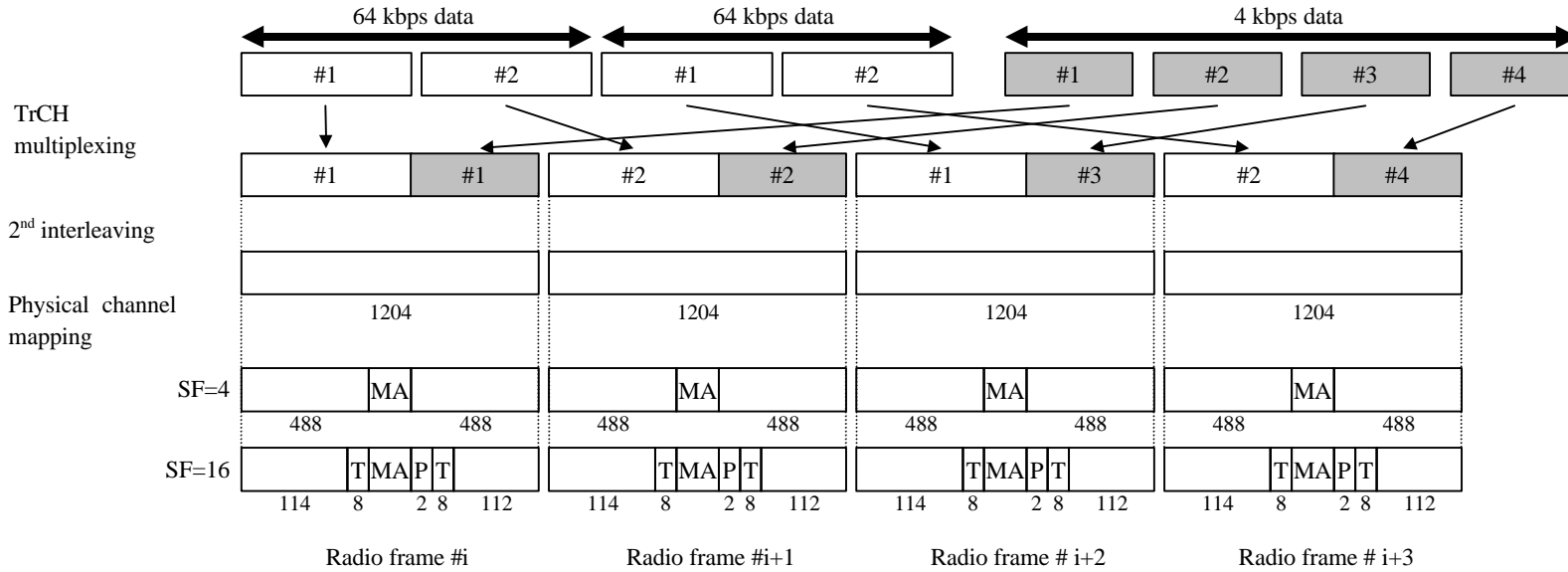


Figure 2: Channel coding and multiplexing example for multiplexing of 64 kbps packet data and 2.4 kbps data

Table 2: Physical channel parameters for multiplexing of 64 kbps packet data and 2.4 kbps data

Midamble	512 chips
Multi codes & time slots	{(SF16 x 1 code) + (SF4 x 1 code)} x 1 time slot
TFCI	16 bits per user
TPC	2 bit

Note: As an additional example, physical channels can also be mapped without using multicode per timeslot, e.g.
 for 64kbps: (SF16 x 1 code x 1 timeslot) + (SF4x 1 code x 1 timeslot)
 for 64kbps: (SF2 x 1 code x 1 timeslot)