3GPP TSG RAN WG1 Meeting #9 Dresden, Germany, Nov 30 - Dec 3, 1999

Document R1-99j13 e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

	CHANGE REQUEST Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.
	25.214 CR Current Version: 3.0.0
GSM (AA.BB) or 3G (A	AA.BBB) specification number ↑
For submission to	1010110
Proposed change affects: (U)SIM ME X UTRAN / Radio X Core Network (at least one should be marked with an X)	
Source:	NEC <u>Date:</u> 1999-11-24
Subject:	Revision of power control timing text
Work item:	
(only one category B	Correction Corresponds to a correction in an earlier release Addition of feature Functional modification of feature Editorial modification Release: Release
Reason for change:	According to the modifications on the downlink slot format introduced by 25.211-CR007, Figure B-1 should be updated. Terminology is also updated.
Clauses affected	Annex B
Affected: C	Other 3G core specifications Other GSM core specifications Other GSM core specifications AS List of CRs: A List of CRs:
Other comments:	

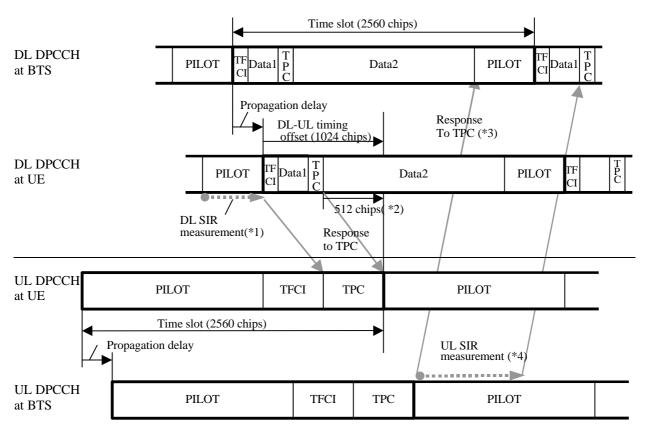
Annex B (Informative): Power control timing

The power control timing described in this annex should be seen as an example on how the control bits have to be placed in order to permit a short TPC delay.

In order to maximise the BTS-UE-cell radius distance within which one-slot control delay is achieved, the frame timing of an uplink DPCH is delayed by 1024 chips -from that of the corresponding downlink DPCH measured at the UE antenna.

Responding to a downlink TPC command, the UE -shall change its uplink DPCH output power at the beginning of the first uplink pilot field after the TPC command reception. Responding to an uplink TPC command, BTS-the UTRAN access point shall change its DPCH output power at the beginning of the next downlink pilot field after the reception of the whole TPC command. Note that in soft handover, the TPC command is sent over one slot when DPC_MODE is 0 and over three slots when DPC_MODE is 1. Note also that the delay from the uplink TPC command reception to the power change timing is not specified for BTSUTRAN. The UE -shall decide and send TPC commands on the uplink based on the downlink SIR measurement. The TPC command field on the uplink starts, when measured at the UE antenna, 512 chips after the end of the downlink pilot field. BTS-The UTRAN access point shall decide and send TPC commands based on the uplink SIR measurement. However, the SIR measurement periods are not specified either for UE nor BTSUTRAN.

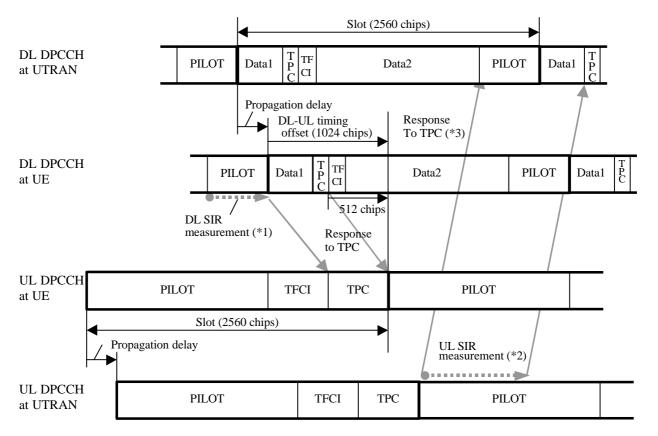
Figure B-1 illustrates an example of transmitter power control timings.



^{*1,4} The SIR measurement periods illustrated here are examples. Other ways of measurement are allowed to achieve accurate SIR estimation.

^{*2} Except the case of DL symbol rate=7.5ksps.

^{*3} If there is not enough time for BTS to respond to the TPC, the action can be delayed until the next slot.



^{*1,2} The SIR measurement periods illustrated here are examples. Other ways of measurement are allowed to achieve accurate SIR estimation.

^{*3} If there is not enough time for UTRAN to respond to the TPC, the action can be delayed until the next slot.