

Agenda Item: Plenary
Source: Alcatel
Title: CR 25.214-099: Downlink inner-loop power control in compressed mode
Document for: Decision

Introduction

During the joint 3GPP RAN WG1-WG3 ad-hoc meeting that took place April 11th, it was agreed that downlink inner-loop power control would be fully specified, including the downlink inner-loop power control in compressed mode.

Due to the late date where this decision was taken, two solutions similar to the uplink algorithm were proposed in [1]. The attached CR corresponds to the second solution where no additional signalling is added, since this solution was favoured by delegates.

References

- [1] R1-00-0576, "Downlink inner-loop power control in compressed mode", Alcatel, Philips

5.2.1.3 Power control in compressed mode

The aim of downlink power control in uplink or/and downlink compressed mode is to recover as fast as possible a signal-to-interference ratio (SIR) close to the target SIR after each transmission gap.

The UE behaviour is the same in compressed mode as in normal mode, described in subclause 5.2.1.2.

~~The UTRAN behaviour during compressed mode is not specified. As an example, the algorithm can be similar to uplink power control in downlink compressed mode as described in subclause 5.1.2.3.~~

~~In downlink compressed mode or in simultaneous downlink and uplink compressed mode, the transmission of downlink DPCCH and DPDCH(s) is stopped.~~

~~In compressed mode, compressed frames may occur in either the uplink or the downlink or both. In compressed frames, the transmission of downlink DPDCH(s) and DPCCH shall be stopped during transmission gaps.~~

~~The power of the DPCCH in the first slot after the transmission gap should be set to the same value as in the slot just before the transmission gap.~~

~~During RPL slots after each transmission gap, ordinary transmit power control algorithm is applied with a step size Δ_{RP-TPC} instead of Δ_{TPC} , where:~~

- ~~• Δ_{RP-TPC} is called the recovery power control step size and is expressed in dB. Δ_{RP-TPC} is equal to the minimum value of 3 dB and $2\Delta_{TPC}$.~~
- ~~• RPL is called recovery period length and is equal to the minimum value out of the transmission gap length and 7 slots.~~

~~After the recovery period, ordinary transmit power control resumes with step size Δ_{TPC} .~~