

TSG-RAN Working Group 1 meeting #16
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Title: LS from R1 to R3: Timeslot ISCP for TDD Node B downlink power control

Source: TSG-RAN WG1

To: TSG-RAN WG3

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In their LS contained in R3-00-2364 WG3 asks for further clarification on some issues regarding the use of TS ISCP measurement. In this LS R1 provides the answers to WG3's questions. The questions by WG3 are repeated in italic for easy reference.

1) *Does WG1 regard the inclusion of this functionality as important for Rel. 99?*

From the WG1 point of view, it is very much recommended to have the TS ISCP measurement available in the Node B for Rel. 99 also for the consistency between WG1 and WG3 specifications.

2) *Can WG1 specify how often this Downlink Timeslot ISCP must be available to the Node B to be effective?*

Background: In WG3 view, the SRNC needs to know what kind of measurement plan it must establish, and how often this measurement result is required in the Node B.

We assume that the SRNC will ask for that measurement from the UE, just for RRM purposes. There is no need to ask for more frequent measurements for the purpose of using TS ISCP in the Node B. The SRNC shall just forward the available DL TS ISCP measurements to the Node B, whenever available. Given the signalling transmission delay from UE via SRNC to Node B, the measurement period has a lower limit of around 1 second. – Of course, continuous, regular measurements are favourable.

3) *Can WG1 specify how the Node B shall use the Downlink Timeslot ISCP IE?*

Background: The SRNC, when giving the measured Downlink Timeslot ISCP IE to the DRNS or Node B, should be sure that this has a positive effect on the link quality and on the capacity of the respective cell.

In general, DL power control within the NodeB is implementation specific. Only recommendations or example solutions are given in 25.224. An example for the use of TS ISCP in the NodeB is:

- reduce the DL power in those timeslots of a CCTrCH where interference is low, and
- increase DL power where interference is high;
- such that in any case, the total DL Tx power is used more efficiently.