

Source: RAN WG 1
To: RAN WG 4
Title: Answer to LS on UE Measurement of ISCP

In its LS WG4 requests clarification of any differences which may exist in measured quantities between TDD UE's which employ multi-user detection and those not employing multi-user detection.

RAN WG1 can confirm, that in general, there will be a difference in the ISCP values measured by UEs with different receiver structures. The reason being, that the ISCP measurement is defined in a way, that it takes only that part of the interference into account, that actually affects the useful signal. Different receivers remove different parts of the interference. Multi-user detection receivers will generally see and report lower ISCP values for a given input signal than rake receivers.

However, in case of certain input signals, limits can be set for the range of possible ISCP values from different receivers currently envisaged. For an input signal at the antenna connector consisting of several codes plus white gaussian noise, the reported ISCP values will be between the noise power as a lower limit and the total input power as the upper limit.

WG1 wants to add, that the same effect applies also for the FDD mode, where also enhanced receiver techniques can be applied.

RAN WG4 also requests clarification of any differences which may exist between ISCP measurements as defined for the UE and the ISCP measurement defined for UTRA.

The definition of the ISCP measurement is the same for the UE and the node B. However, as explained above, different receiver structures will lead to different ISCP values. No differences are seen for the requirements for the measurements in the UE and UTRAN.

WG1 recommends, that requirements for the ISCP measurement should be independent of the implementation of the receiver.