**TSG-RAN Working Group 1, meeting #16** ***TSGR1#16(00)1252***
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**Source:** **Ericsson**
**To:** **TSG RAN4**
**CC:** **TSG RAN2, TSG RAN 3**
**Title:** **Draft answer to LS on UTRAN RSSI**

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RAN WG1 thanks RAN WG4 for their LS in R4-00-0743, related to the definition of UTRAN RSSI. Based on the discussions during their 16th meeting, RAN WG1 came to the following conclusions.
In the by RAN4 proposed definition the term BS is used to represent the base station. The term BS is not referred to in the RAN WG1 specifications. RAN WG1 decided to modify the definition slighly to avoid that term according to the following:

**The wide-band received power including the ~~internally~~ in the ~~BS~~ receiver generated noise, within the UTRAN uplink ~~carrier~~ channel bandwidth in an UTRAN access point. In case of ~~BS with~~ receiver diversity the reported value shall be the linear average of the power in the diversity branches.**

RAN WG1 believes that the wide-band received power should be measured in the UTRAN uplink channel bandwidth, and not in the UTRAN carrier uplink channel bandwidth. RAN WG1 would like RAN WG4 to confirm that this is the correct interpretation.
Further, RAN WG1 would like to ask RAN WG4 if this change of name and definition would also apply to the UTRAN carrier RSSI measurement for the UE.

As can be seen from the definition proposed by RAN WG4, the reference point for the measurement would be removed. RAN WG1 has identified at least three implications with having no reference point for the measurement:

1. It is not possible to set an absolute accuracy requirement and therefore it can not be guaranteed that different Node B reports similar values in a similar condition, as the measurement may be implemented using different reference points.
2. It is not possible to define a measurement range over which both the absolute and relative measurement accuracy requirement shall be applicable for, as the measurement range is based on a absolute measurement and the absolute measurement value is not clearly defined without a common understanding of the reference point.
3. Without a reference point (external) the measurement accuracy can not be verified.

RAN WG1 prefers to keep the reference point as currently defined in TS 25.215 and TS 25.225 for the UTRAN RSSI measurement and has adopted the other changes indicated by RAN WG4 in the RAN WG1 specifications. The agreed CR for TS 25.215 (R1-00-1251) is attached to the LS.