RP-010432

TSG-RAN Meeting #12 Stockholm, Sweden June 12-15 2001

Agenda Item: 9.8.4 **Source:** Allgon

Title: Feasibility Study of UE antenna efficiency test methods

performance requirements-summary of methods

Document For: Information

Presented by: Leif Eriksson, Allgon (leif.eriksson@allgon.se)

Rapporteur is <u>olle.edvardsson@allgon.se</u>

0. Scope and background

During the TSGR4#13 meeting a study item was established titled "Feasibility Study of UE antenna efficiency test methods performance requirements". This study was scheduled to be completed in June 2001. .

Three reports (TSGR4#16(01)0396, TSGR4#17(01)0630) and (TSG-R4#17 (01)0656)) on the current status have been submitted as part of the feasibility study.

1. Summary

The measurement of antenna efficiency is a fairly complex task and to review this aspect a the feasibility report included a a survey of basic test parameters and test methods.

An "ideal" method giving all required parameters is possible to define but was at least with earlier test methods complicated and time consuming to perform. In most cases therefore a simplified method have been used with corresponding loss of information. With modern instrumentation it is possible to get full information within a reasonable test time

The report covers the following aspects:

- Situations where the test methods may be applied are identified and a number of parameters important in one or more of these situations have been identified.
- Classification after different types of fields around the terminal and its antenna is
- An inventory of test method principles, currently used or published, is done and mapped to situations and performance parameters described.

Contacts with ongoing similar work within CTIA (a draft 0.7 of a standard is nearly published) and within subgroup 2.2 of COST273.

The following remains to be done:

- Inventory of actually and presently used methods among UE antenna testers and developers to be made.
- Final conclusions / recommendations to be made.

2. Final report

The time schedule for the final report is to be present at the TSG-RAN4 #18 meeting in Berlin 9-13 of July.