TSG-RAN Working Group 4 (Radio) meeting #8   **TSG R4#8 (99)700**
Sophia Antipolis, France 26-29 October 1999

Agenda Item:

Source: Ericsson

Title: ACS measurement in 25.141

Document for: Approval

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1. Introduction

Chapter 7.4.1in [1] specifies the test conditions and measurement method for Adjacent Channel Selectivity (ACS) which is not totally in-line with the definition of ACS in [2]. This document discusses the topic and presents a text proposal.

2. Comments on the ACS test conditions and measurement method

The measurement system set-up for Adjacent Channel Selectivity (ACS) in figure 7.4-1 [1] contains a Mobile station simulator. Since the DPCH for reference sensitivity channel can be generated by a signal generator as well, we propose to use signal generator (general approach) instead of mobile station simulator and adapt the test set-up.
Since this measurement is performed on a static reference channel, we propose to remove the text for TPC function.
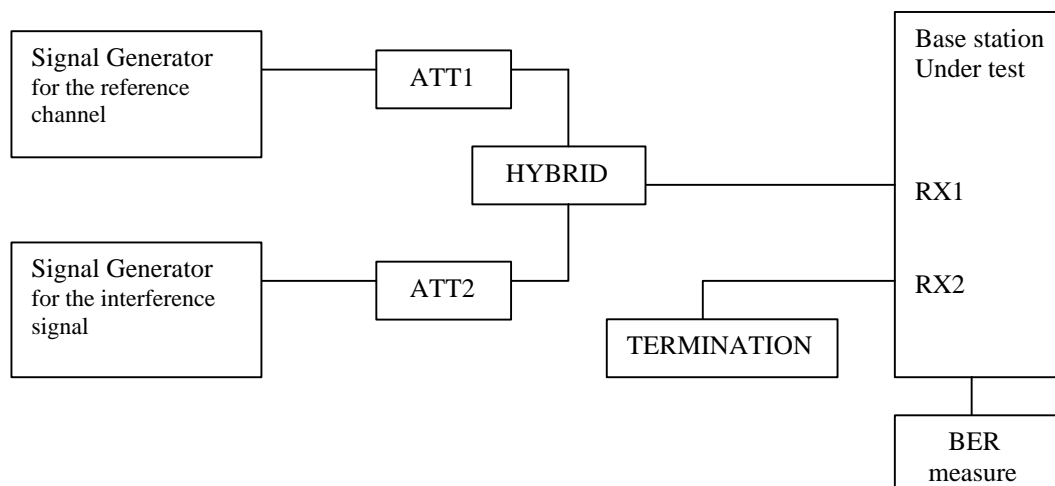The ACS measurement as defined in [1] is a BER measurement with a defined interference signal level, the text for measurement of difference between the level of the interference signal and the level of specified sensitivity level + 6 dB should be removed.

The wanted signal is given by:

C=-122+6=-116dBm

3. Text proposal

7.4.1 Test conditions and measurement method

<u>Fig. 7.4-1</u> Measuring system set-up for Adjacent channel selectivity.

1. Set up the equipment as shown in figure 7.4-1.
2. Terminate the RX port, which is not tested.
3. Generate the reference channel and adjust the ATT1 to set the input level to the base station under test to the specified –116 dBm.
4. Set up the interference signal at the adjacent channel frequency and adjust the ATT2 to obtain the specified level of interference signal at the base station input. Note that the interference signal shall have an ACLR of at least 63 dB in order to eliminate the impact of interference signal adjacent channel leakage power on the ACS measurement.
5. Measure the BER and control that the measured value does not exceed the specified value (BER< 0.001).
6. Repeat the test for the port, which was terminated.

7.4.2 Minimum requirement

The BER shall not exceed 0.001 for the parameters specified in the table

Table n : Adjacent channel selectivity

Parameter	Level	Unit
Data rate	12.2	kbps
Wanted signal	-116	dBm
Interfering signal	-52	dBm
Fuw (Modulated)	+ /- 5	MHz

4.   References

[1]   Base station conformance testing (FDD), TS 25.141, v2.0.2
[2]   UTRA (BS) FDD, Radio transmission and reception, TS 25.104, v3.0.0