

Agenda Item: 8.7
Source: Ericsson
Title: CPICH power accuracy
Document for: Approval

1. Introduction

TS25.141 V2.0.2, section 6.6.4 specifies some test for "Perch channel power", in terms of ratio to total Output power. As the absolute value of CPICH power determines the cell radius, its power accuracy should rather be specified as absolute accuracy wrt. to an ordered value.

It is not clear, why this test is in the chapter on "Transmitted RF carrier power versus time".

Besides that, there seem to be some editorial changes necessary.

The requirement itself relates to the requirement on overall power accuracy. Because of quantisation errors for individual channels it should be relaxed somewhat wrt. the overall power accuracy requirement. We therefore propose a requirement of ± 2.1 dB.

It is therefore proposed to delete this section in chapter 6.6 and insert the following text as a new level 3 section to chapter "6.2 Base station output power".

2. Proposed new text

6.2.2 CPICH power accuracy

6.2.2.1 Definition and applicability

CPICH power accuracy is defined as the maximum deviation between the ordered channel power and the power in that channel measured at the TX antenna interface.

The requirement is applicable for all BS types.

6.2.2.2 Conformance Requirement

See 6.2.2.5

6.2.2.3 Test purpose

The purpose of the test is to verify, that the BS under test delivers CPICH power within margins, thereby allowing reliable cell planning and operation.

6.2.2.4 Method of test

6.2.2.4.1 Initial conditions

Establish applicable temperature and supply voltage, as specified in chapter 4.4

Connect BS to code domain analyser as shown in Fig?

Disable closed loop power control

Setup BS transmission at maximum total power as specified by the supplier. Channel setup shall be according to Table 6.1-1

6.2.2.4.2 Procedure

With the Code Domain Analyser measure the power in the PCCPCH and PCPICH. Repeat the measurement for all other applicable temperatures and supply voltages.

6.2.2.5 Test requirement

The measured CPICH power shall be within $[+/-2.1]$ dB of the ordered absolute value.

Fig? Measurement setup for PCCPCH accuracy test

