

Agenda Item: 6.3 & 7.2

Source: JAPAN TELECOM CO., LTD., Mitsubishi Electric Co., NEC, NTT DoCoMo

Title: Proposal for UE maximum output power

Document for: Approval

1. Introduction

The purpose of this document includes 2 aspects. The first one is related to adhoc group 3 in RAN WG4. At this adhoc, we discussed UE maximum output power tolerance, though we couldn't reach the agreement. So we'd like to again input our suggestion from implementation point. The other one is related to UE power class. Due to TSGW4#3(99)102, there raised proposal to delete UE power class 1,2,3,5,6. From multi-media service point of view, at least, Class 1-3 should be considered, we believe.

2. Process of discussion and proposal on power tolerance

Through the discussion, the tolerance range of 4dB seemed to be agreed. Discussion point was how to center the range.

T-mobil and maybe Vodafone suggest from operator point that they need guaranteed minimum output power close to 21dBm for cell planning, so if 4dB range is required, it should be +3/-1dB. Due to Japanese Radio regulation, upper limit should be less than +1dB, so as a result, they suggest to set the tolerance as +1/-1dB.

Nokia, Ericsson and NEC suggest from manufacture point that we really needs 4dB range from implementation view, considering Japanese regulation, we suggest to set the tolerance as +1dB/-3dB. (Nokia and Ericsson suggest to +/-0.5dB extra tolerance for extreme condition.)

NTT Docomo suggest from Japanese operator point that they support Nokia, Ericsson and NEC and explain that -3dB doesn't cause terrible influence to network planning, though they think +/-0.5dB relaxation for extreme condition is not preferable.

To see the discussion above, it is very clear that concerning of European operators could be cleared out from NTT Docomo's explanation so that +1/-3dB tolerance is acceptable. So again we'd like to suggest +1/-3dB tolerance for UE output power. And on the relaxation in extreme condition, we consider that we could accept +1/-3dB even in extreme condition, so that again we suggest that this tolerance include extreme condition.

3. Proposal for UE power class

On the relevant document (Tdoc102), they explain that they can't foresee the need of high power class terminals so that those can be added in the future. But we consider that without proposition of high speed data service to the market from the beginning, we couldn't compete against 2nd generation terminals, so that we couldn't foresee our success as a system. And those class terminals can be defined with adding power on the basic link budget under the condition of coding gain and data rate, in a word, it can be treated in basic cellular service. From other aspect is that these terminals could be car phone as a style. In this case, we could not agree that there's no foreseeable need. So we suggest to remain class1-3 as it is.

3.Text proposal

Remove square brackets from maximum output power and tolerance of Power class 1-3 and tolerance of Power class 4 from Table 1:UE Power Classes of S4.01Av0.0.3.