

**Title:** Proposed Addition to AMR/NS Requirements concerning SNR Improvement  
**Source:** Motorola  
**Document for:** Discussion & Decision  
**Agenda Item:** 6

## 1 Introduction

The draft recommended minimum performance specification for AMR/NS, taking into account the results of the selection phase, contains a note stating the intention to include a requirement concerning SNR improvement (Section 6.1.4 of SMG11/S4 TD92/00).

The intention is to ensure that a solution brought to the attention of SMG11 in the future does indeed provide useful SNR improvement across a range of noise conditions. Without a requirement directly addressing noise suppression capability, the result may be noise suppressers passing the recommended minimum performance specification with noise suppression capability which is achievable by alternative means, e.g. careful handset mechanical design. This is clearly not the intention of the requirements specification.

Therefore we propose a definition of the required SNR improvement following the approach used to define a requirement ensuring that the noise suppressed speech is preferred. This proposal is provided in section 2.

## 2 Proposed Requirement

We propose the following addition to section 6.1.4 of the Recommended Minimum Requirements Specification. The proposed values for SNR improvement reflect the assertion made in the report to SMG (SMG11/S4 TD93/00), that the selection phase showed that SNR improvement in the region of 5dB to 10dB is possible.

" Additionally, it is required that the subjective SNR improvement as measured by the methodology [Ref 1] where the measure is conducted on all CCR tests [Ref. 2] meets the following requirements:

- (a) In at least 2 of the 6 conditions tested the SNR improvement shall be at least 6dB
- (b) In at least 2 of the remaining 4 conditions the SNR improvement shall be at least 4dB"

[Ref 1] either points to the selection phase documentation defining the SNR improvement measurement method for the CCR based tests, or refers to an annex of the recommended minimum performance requirements specification, which contains the description of the methodology.

[Ref 2] points to the test plan (currently being developed) which is associated with the recommended minimum performance requirements specification.