Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Corrections for CINR measurement**
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Re:	Recirculation of P802.16 REVe/D6
Abstract	Clarifications on CINR measurement
Purpose	Adoption of suggested changes into P802.16e/D6
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Introduction

In the current spec. the CINR report is carried with REP-RSP MAC message or fast feedback channel (CQICH). However, there are still some ambiguities regarding the frequency reuse factor, whether the loading is reflected on the estimate or not. In this contribution, we propose the clarification to get rid of such ambiguities for fast feedback channel.

Motivations

1. In the current spec., various permutation schemes that possibly use different frequency reuse factor can be placed within a frame. However, the current reporting scheme only says to report the CINR of the preamble and does not provide how to indicate the reuse factor.

Suggested Remedies

1. We modify the CQICH IEs to indicate reporting the CINR estimate from the preamble for the different frequency reuse factors or band AMC differential CINR.
   A. Because the reporting of CINR for Band AMC is related with REP-REQ/RSP, there is no specific indication to report the CINR for Band AMC.

Suggested Text changes

[Add the following entries to all tables listed below, immediately following the 'Duration' entry:
Table 285n ("DL HARQ Chase sub-burst IE format")
Table 285o ("DL HARQ IR CTC sub-burst IE format")
Table 285p ("DL HARQ IR CC sub-burst IE format")
Table 302a ("CQICH Enhanced allocation IE format")

Syntax	Size	Notes
……..	…	……..
CINR type included	1 bit	
If (CINR type included=1){		
Report type	2 bits	The report type of CINR estimate measured from preamble 0b 00 – Frequency reuse factor=1 configuration. 0b 01 – Frequency reuse factor=3 configuration.
}		
Averaging parameter included	1 bit	
If (Averaging parameter included == 1) {		
Averaging parameter	4 bits	Averaging parameter α_{avg} used for deriving CINR estimates reported through CQICH. This value is in multiples of 1/16 ranging [1/16,16/16] in increasing order.
}		

[Add the following text at the end of field description for each table]

CINR type included

Indicates whether an update to the CQI configuration exists in the IE. A value of '0' indicates that the SS shall perform CINR measurements using the latest received CQI configuration.

CINR type

Indicates where the CQI report shall be measured. SS can measure the estimation of the CINR from the preamble ('0') or the permutation zone indicated ('1').

Averaging parameter included

Indicate whether the averaging parameter α_{avg} is exists in the IE. A value of '0' indicates that the SS shall perform CINR measurements using the latest received averaging parameter.