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Title	<b>Clarification to CQICH_Control IE</b>	
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Re:	Response to Recirculation Ballot #14c Announcement	
Abstract	Provide clarification to CQICH_Control IE	
Purpose	Review and Adopt the suggested changes into P802.16e/D4-2004	
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# Clarification to CQICH\_Control IE

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## 1. Introduction

In IEEE802.16e-D4 document, there should be some editorial changes made for CQICH\_Control IE section in 6.3.2.3.43. And also, a table indicating a threshold values for CQICH reporting threshold should be added, for with out such table mapping threshold values to CINR, it would be unclear to MSS what the values in this field is indicating. Also, one other editorial change should be made to P80216-REVd-D5 document.

Two Remedies are shown in this contribution.

## 2. References

[1] C80216e\_04/54r2.doc, “Quality Based Reporting for Uplink CQICH Channel”

[2] P80216-REVd-D5, “Air interface for Fixed Broadband Wireless Access System (Draft Revision)”

## 3. Proposed Changes

[Remedy 1]

[Changes on P802.16e/D4-2004 by following text]

6.3.2.3.43 H-ARQ MAP message

6.3.2.3.43. ~~15 H-ARQ MAP message format~~ [CQICH Control IE](#)

[Make the following changes to section 6.3.2.3.43. ~~15~~:]

Table 86a – ~~H-ARQ~~[CQICH](#) Control IE format

Syntax	Size	Notes
CQICH Control IE () {		
CQICH indicator	1 bit	If the indicator is set to 1, the CQICH Control IE follows.
if CQICH indicator == 1 {		
Allocation Index	6 bits	Index to the channel in a frame the CQI report should be transmitted by the SS.
Period (p)	2 bits	A CQI feedback is transmitted on the CQI channels indexed by the (CQI Channel Index) by the SS in every $2^p$ frames.
Frame offset	3 bits	The MSS starts reporting at the frame of which the number has the same 3 LSB as the specified frame offset. If the current frame is specified, the MSS should start reporting in 8 frames

Duration (d)	4 bits	A CQI feedback is transmitted on the CQI channels indexed by the (CQI Channel Index) by the SS for $2^{d-1}$ frames. If d is 0000, the CQICH is de-allocated. If d is 1111, the MSS should report until the BS command for the MSS to stop.
} else {		
CQI reporting threshold	3 bits	A threshold used for SS to report its CINR using CQI channel; If 000, this threshold is neglected.
}		
}		

[Add the following definition to the end of the section (following “Duration” definition):]

### **CQI reporting threshold**

Used by the SS to determine whether it reports current channel measurement through CQI channel if allocated in the future. If the value is set to 000, this threshold is inactive afterwards; otherwise it is activated.

Table xxx – Threshold Values

<u>CINR [dB]</u>	<u>Value</u>
<u>CQI inactivated</u>	<u>000</u>
<u>-6.0</u>	<u>001</u>
<u>-4.0</u>	<u>010</u>
<u>-2.0</u>	<u>011</u>
<u>-0.0</u>	<u>100</u>
<u>2.0</u>	<u>101</u>
<u>4.0</u>	<u>110</u>
<u>6.0</u>	<u>111</u>

### **[Remedy 2]**

Table name for Table 93 – H-ARQ\_Control IE should be changed to CQICH\_Control IE in section 6.3.2.3.43.5 of P80216-REVd\_D5.