Project	**IEEE 802.16 Broadband Wireless Access Working Group <**http://ieee802.org/16**>**
Title	**Table updates for Table h10-TLV types for CXP Payload of Draft IEEE P802.16h/D4**
Date Submitted	**2008-3-17**
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Re:	LB29 and IEEE 802.16h/D4 Feb 2008
Abstract	There are a number of modifications to Table h10 of IEEE P802.16h/D4
Purpose	In response to comments 300, and 302 as related to LB29
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Table updates for Table h10-TLV types for CXP Payload of Draft IEEE P802.16h/D4

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1. Introduction

This document covers the following modifications to IEEE P802.16h/D4:

- There antenna description in BS/SS_RF_Sector_ID should include a parameter that captures a variety of antenna techniques as described in the Suggested Remedy of *Comment 300* in [2].
- The GPS location of a fixed SS might be useful to a protocol sniffer. As such, it has been added to the table in accordance with the Suggested Remedy of *Comment 302* in [2].

The suggested editing changes in section 2 are driven by comments received during Session #52 [3].

2. Specific editing changes

Blue underlined text represents specific editorial additions.

~~Red strikethrough~~ text is to be deleted.

Black text is text already in the draft.

Bold italic text is editorial instructions to the editor.

Make the following changes to Table h10 in [1]

Type	Parameter Description	Length (bytes)	Comment
68	BS_RF_Sector_ID	~~4~~5	bits 27-30 no. of antenna elements bits 31-34 no. of possible beams bit 35 - Interference cancellation capability bit 36 - MIMO capability (which can imply interference cancellation to the same PHY cases)

			bits 37-39: reserved Note: In the case of beamforming the antenna gain refers to the gain of a single beam The azimuth and 3dB aperture refers to the whole sector covered Beam directions will be considered as uniformly spaced within the sector Beamwidth will be approximated as the sector beamwidth divided by the number of antennas A "1" in either MIMO capability or Interference cancellation capability would mean that the BS/SS is able to devote antenna resources to cancel external interference.
71	SS_RF_Sector_ID	45	bits 27-30 no. of antenna elements bits 31-34 no. of possible beams bit 35 - Interference cancellation capability bit 36 - MIMO capability (which can imply interference cancellation to the same PHY cases) bits 37-39: reserved Note: In the case of beamforming the antenna gain refers to the gain of a single beam The azimuth and 3dB aperture refers to the whole sector covered Beam directions will be considered as uniformly spaced within the sector Beamwidth will be approximated as the sector beamwidth divided by the number of antennas A "1" in either MIMO capability or Interference cancellation capability would mean that the BS/SS is able to devote antenna resources to cancel external interference.
75	GPS location for Fixed SS	2	provides additional information regarding SS location for a protocol sniffer

3. References

[1] IEEE P802.16h/D4: *Air Interface for Fixed Broadband Wireless Access Systems Improved Coexistence Mechanisms for License-Exempt Operation*, Draft Standard.

[2] IEEE 802.16h-07_053r2: Letter Ballot #29 *Commentary* database file with resolutions from Session #52.

[3] IEEE C802.16h-07_106: Action Items and Ad hocs for LE TG following Session #52.