Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Flexible Frequency Reuse Operation**
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Abstract	Frequency reuse factor of 1 and non-one frequency reuse factor support at the same time
Purpose	Adoption of suggested changes into P802.16e/D2
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Problem definition

In order for SS to transmit reliably at the edge of the cell, SS needs to be assigned non-one frequency reuse factor allocation. IEEE 802.16 REVd defines PUSC for this purpose. For similar operation in AMC and optional FUSC, the following text change is needed.

Suggested change to the standard

Fix table 266 in page 503 of P802.16-REVd/D5 as shown below

Table 244–OFDMA downlink Frame Prefix format

Syntax	Size	Notes
DL_Frame_Prefix_Format() {		
Used subchannel bitmap	6 bits	~~xxxxx1: Subchannels 0-11 used~~ ~~xxxx1x: Subchannels 12-19 used~~ ~~xxx1xx: Subchannels 20-31 used~~ ~~xx1xxx: Subchannels 32-39 used~~ ~~x1xxxx: Subchannels 40-51 used~~ ~~1xxxxx: Subchannels 52-59 used~~ See the below explanation
Ranging_Change_Indication	1 bit	
Repetition_Coding_Indication	2 bits	00 – No repetition coding on DL-MAP 01 – Repetition coding of 2 used on DL-MAP 10 – Repetition coding of 4 used on DL-MAP 11 – Repetition coding of 6 used on DL-MAP
Coding_Indication	3 bits	000 – CC encoding used on DL-MAP 001 – BTC encoding used on DL-MAP 010 – CTC encoding used on DL-MAP 011 to 111 – reserved
DL-MAP Length	8 bits	
Reserved	4 bits	Reserved; Shall be set to 0
}		

Further, change the explanation for "Used subchannel bitmap" as follows.

Used subchannel bitmap

~~A bitmap indicating which groups of subchannel are used on the PUSC zone~~

What this bitmap indicates is different according to the type of zone, which is described in the following table.

bitmap	What the bitmap indicates		
	On the PUSC zone	On the optional FUSC zone	On the AMC zone
xxxxx1	Subchannels 0-11 used	Subchannels 0-5 used	Bands 6k used, k=0,...,7
xxxx1x	Subchannels 12-19 used	Subchannels 6-11 used	Bands 6k+ 1 used, k=0,...,7
xxx1xx	Subchannels 20-31 used	Subchannels 12-16 used	Bands 6k+ 2 used, k=0,...,7
xx1xxx	Subchannels 32-39 used	Subchannels 17-21 used	Bands 6k+ 3 used, k=0,...,7

x1xxxx	Subchannels 40-51 used	Subchannels 22-26 used	Bands 6k+ 4 used, k=0,...,7
1xxxxx	Subchannels 52-59 used	Subchannels 27-31 used	Bands 6k+ 5 used, k=0,...,7