

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Proposed 802.16m Frame Structure For Frequency Overlay Mode	
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Re:	IEEE 802.16m-08/118r1	
Abstract	Frame structure that can support frequency overlay is proposed	
Purpose	To be discussed and adopted by TGM for use in 802.16m SDD	
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Proposed 802.16m Frame Structure for Frequency Overlay Mode

1. Introduction

This contribution describes the frame structure to support frequency overlay in 16m specification. To this end, we briefly describe the operation scenario of frequency overlay. Then, we propose the text for the frame structure to support frequency overlay.

2. Problem Definition

Frame structure supporting wider channel for 802.16m has been proposed in the Rapporteur proposal C80216m_08/118r1. Those 3 proposals deal with legacy support for 16e MSs and wider channel support for 16m MSs as depicted in Figure 1. The main problem in these proposals is UL coverage problem because TDM muxing is assumed in UL interval which incur power outage problem for MSs with poor channel condition in cell edge or shaded area. Furthermore, 16m MSs that can support only narrow BW can't access the 16m system in the proposed frame structure. To cope with this problem, the frame structure supporting frequency overlay shall be designed supposing TDM muxing in UL and frequency overlay with multiple narrow BW is needed.

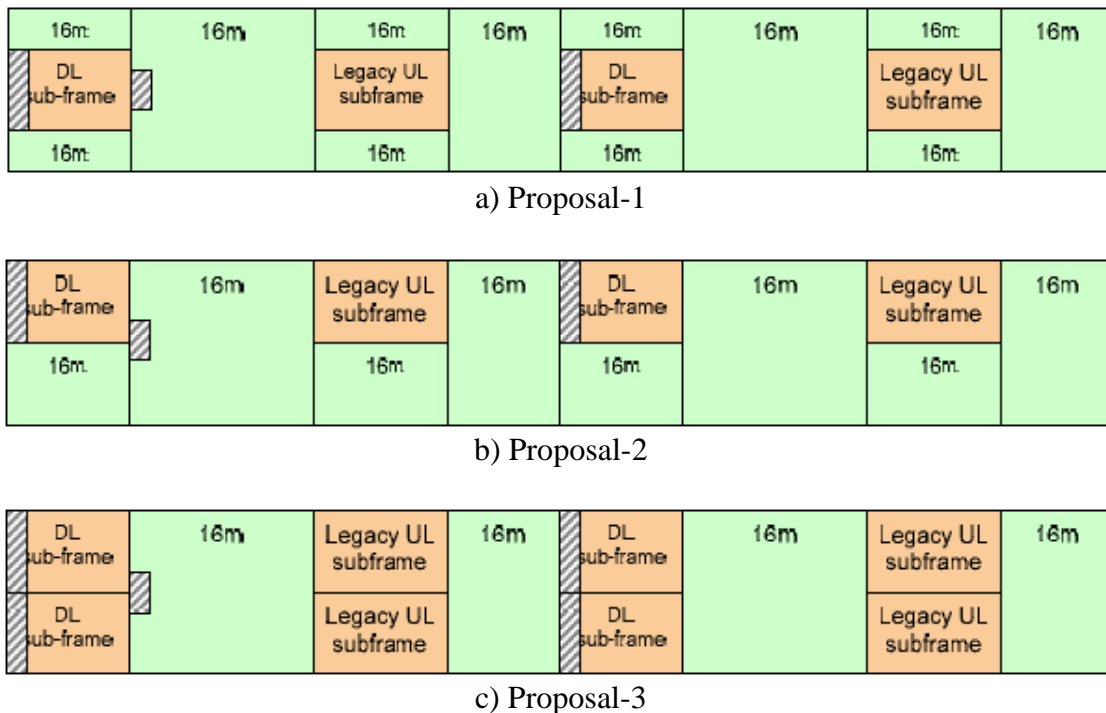


Figure 1. Rapporteur Group Proposals for wider channel support

3. Proposed Text

[Insert the following subclause after subclause 11.4.1 and rearrange section numbers for the following sections]

11.4.2 Basic frame structure with frequency overlay mode support

The IEEE 802.16m frame structure with frequency overlay mode support is illustrated in Figure 11.4.4-1. Frequency overlay is supported to those MSs that can support wide BW operation using multiple narrow BW

FAs.

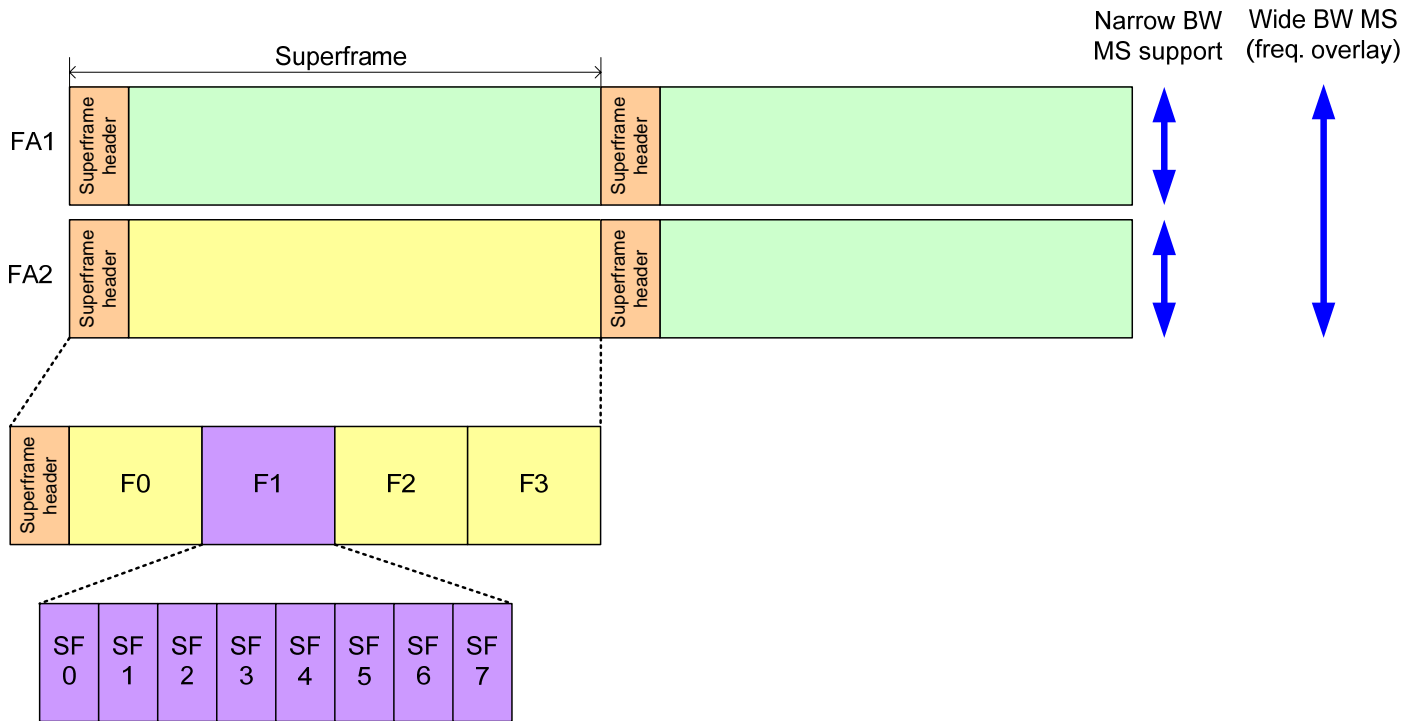


Figure 11.4-4: Frame structure supporting frequency overlay

[Insert the following subclause in subclause 11.4.3 as another proposal]

11.4.3 Frame structure in frequency overlay mode with legacy support

When legacy support is enabled and the 802.16m uses a wider contiguous channel, the legacy channel is on the one side of the wider 802.16m channel, as illustrated in Figure 11.4-4. Frequency overlay mode can be supported in those 16m subframes aligned in time with each other.

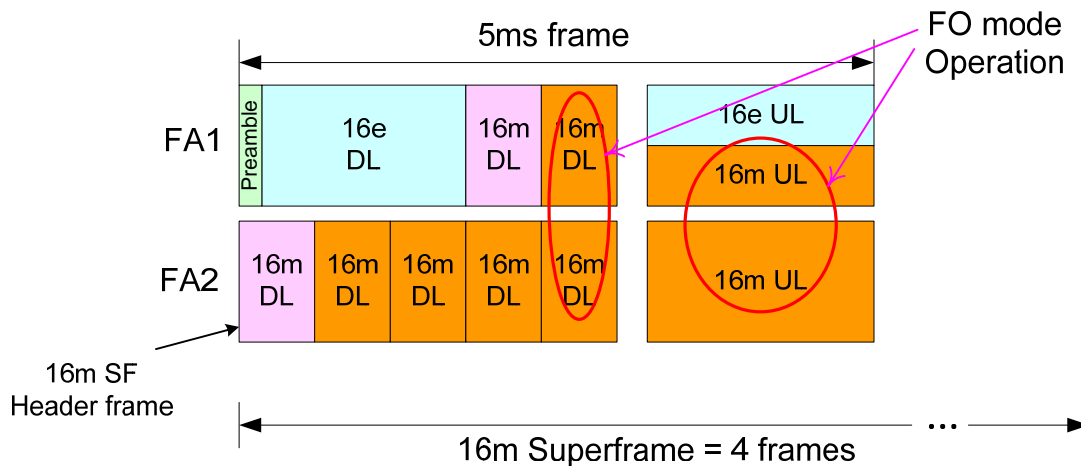


Figure 11.4-4: Frame structure supporting frequency overlay with legacy support