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Title	**Comments and Proposed SDD Text for Multi-Carrier Frame Structure**
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Re:	Call for comments on C802.16m-08/118r1
Abstract	This contribution proposes the SDD text for multi-carrier frame structure
Purpose	To incorporate the proposed text into the Project 802.16m System Description Document
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Comments and Proposed SDD Text for Multi-Carrier Frame Structure

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1 Introduction

In C802.16m-08/118r1, there are three proposals listed in Section 11.4.3 for frame structure supporting legacy frames with a wider channel for 802.16m. The three proposals provided in C802.16m-08/118r1 are addressing different scenarios to allocate one or more legacy channels within the 802.16m system bandwidth. These scenarios are not mutually exclusive and should be up to deployment choice.

In this contribution, we propose some harmonization text as well as removing explicit details on 16m sync channel as this is out of scope of Session #54.

2 Proposed SDD Text

[Add the following sections and text into 802.16m-08/003]

11.4.3 Frame Structure Supporting Legacy Frames with a Wider Channel for 802.16m

In the case where the 802.16m has a wider bandwidth than the legacy system, there can be one or more legacy enabled channels assigned within the band. The legacy enabled channel(s) can be assigned at different locations within the band per deployment needs. If the 802.16m MS bandwidth capability is at least 5MHz, the legacy enabled channel(s) can be located in increments of 5MHz as shown in Figure 11.4.3-1. Some of the legacy enabled channel(s) can be designated as legacy-only channel.

Figure 11.4.3-2 shows the frame structure for the case where one legacy enabled channel is allocated in the middle of the 802.16m band. Figure 11.4.3-3 shows the frame structure for the case where more than one legacy enabled channels is allocated within the 802.16m band. The FRAME_OFFSET shown in Figure 11.4.3-2 and Figure 11.4.3-3 is for illustration. It is an offset between the start of the legacy frame and the start of the new frame. The value and the relative shifting direction of the FRAME_OFFSET is for FFS. TDM and/or FDM multiplexing of legacy and 16m resource is for FFS. The UL sub-frame shown in the figure does not preclude TDM or FDM multiplexing. In a sub-frame that contains both legacy enabled channel and 802.16m channel, guard bands shall be assigned between adjacent legacy enabled channel and an 802.16m channel. In a sub-frame that contains only 802.16m channel, guard bands may be omitted.

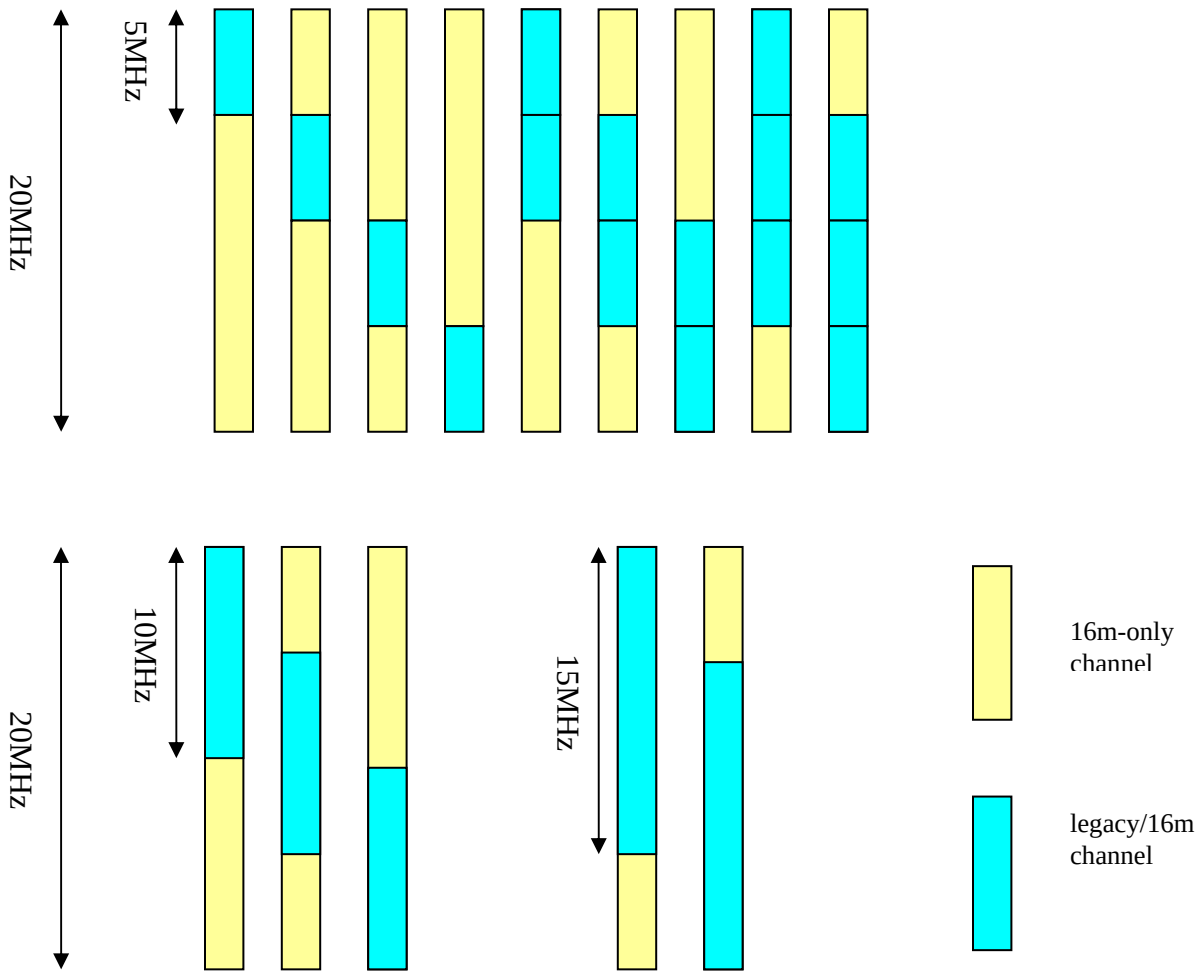

Figure 11.4.3-1 Multiplexing of legacy and 16m channels

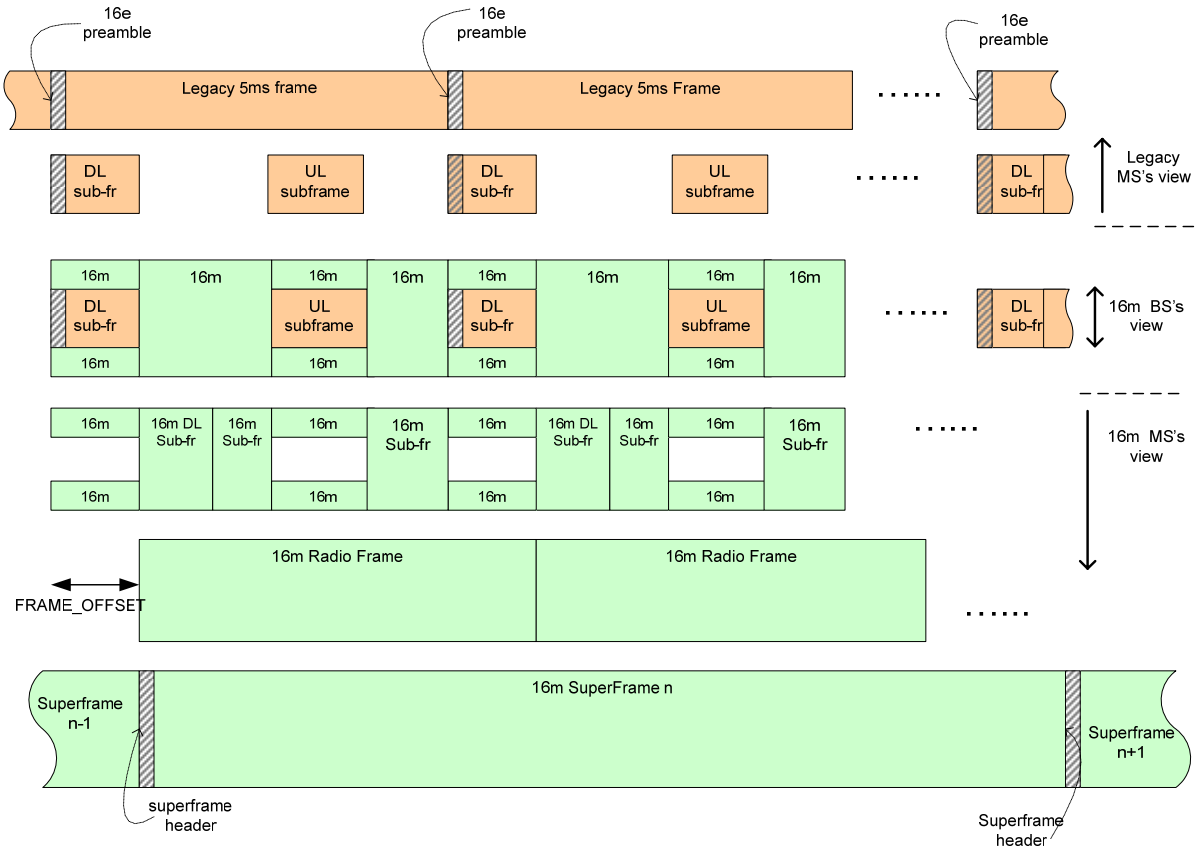

Figure 11.4.3-2 Frame Structure for the case where one legacy channel is assigned in the middle of the 802.16m band

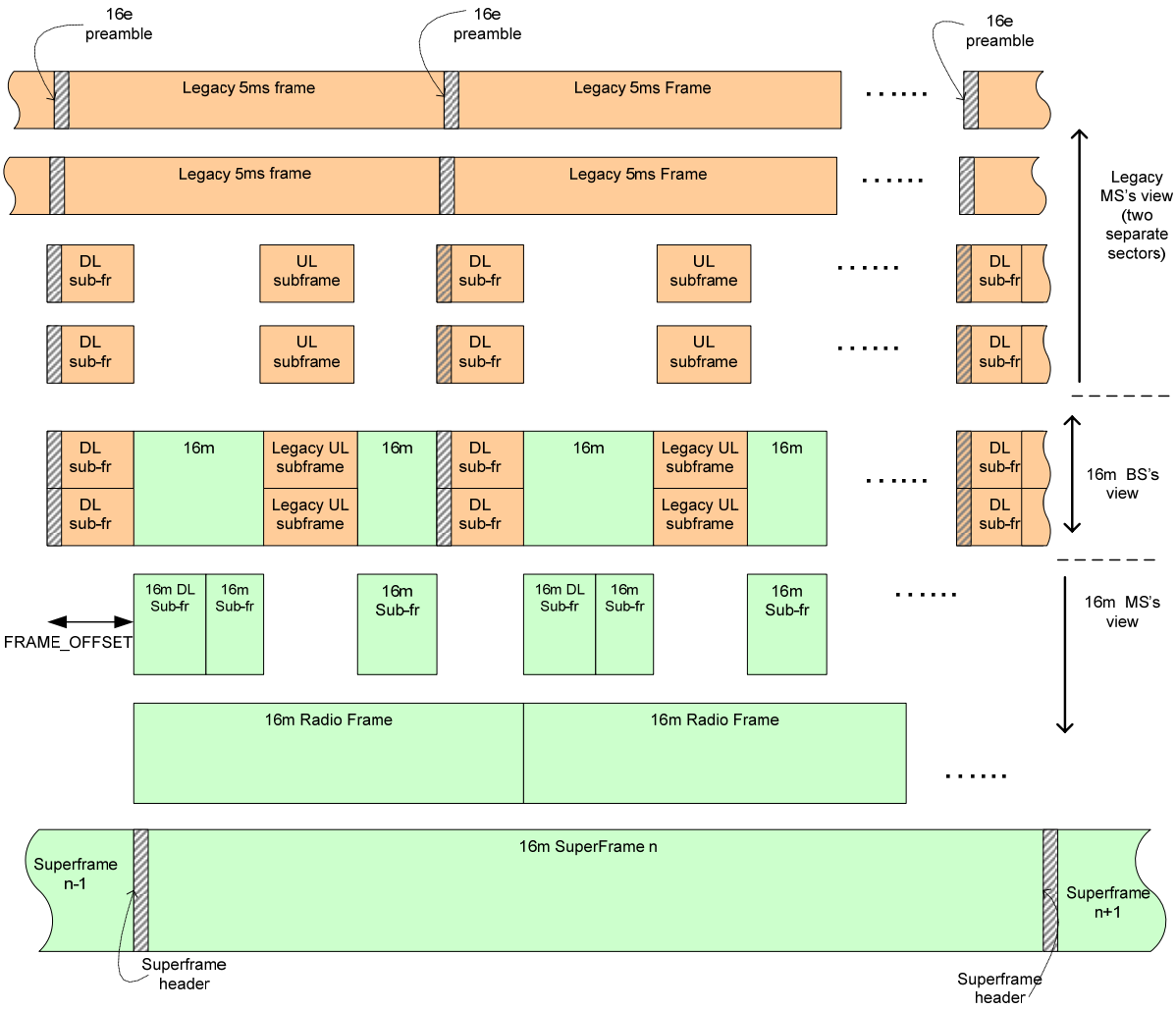

Figure 11.4.3-3 Frame Structure for the case where the two legacy channels are assigned within the 802.16m band