CCITT SGXV
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Specialists Group on Coding for Visual Telephony

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Source: JAPAN
Title : Exact video bitrates and bit allocation in the H.221 frame structure

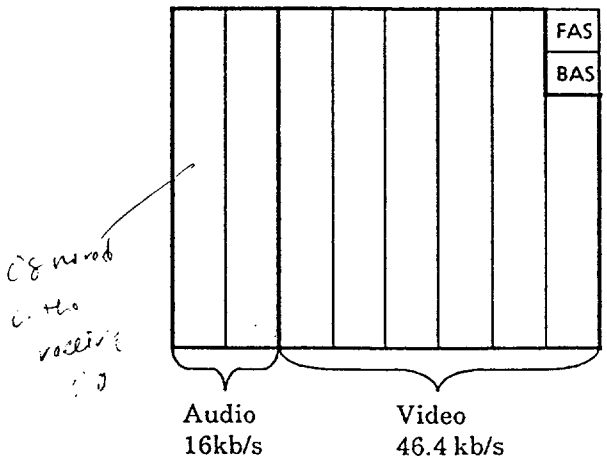
In H.221, the 'S' bit in audio encoding BAS permits a maximum data (including video) bitrate of 46.4kbit/s when p = 1 and an audio bitrate of 16 kbit/s. Since an AC channel need exist only when it is required and the video bitrate should be as high as possible, the normal video bitrate at P = 1 will be 46.4kbit/s and this should be evaluated in the FH experiment.

When p = 2, two formats are possible, i.e., either two B channels are independent or Two B channels are synchronized by terminals. In the former case, the video signal on the 2nd B channel requires no transmission frame structure and the video bitrate becomes 64kbit/s (including FEC overhead). In the latter case, FAS is required for synchronization and the video bitrate in the 2nd B channel decreases to 63.2kbit/s (however, some bits in the first B channel are added). Apparently, BAS is not required in the 2nd B channel.

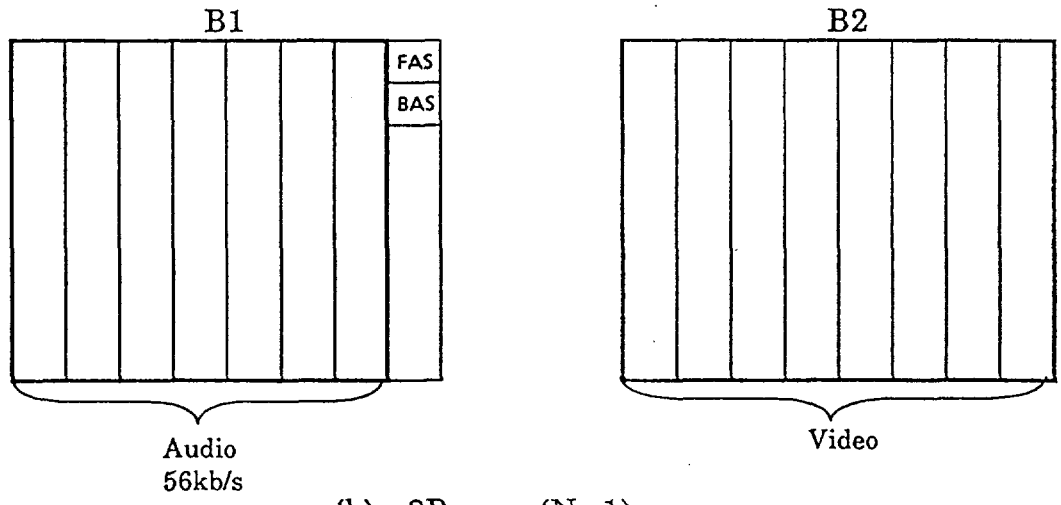
When p = 6, the Ho channel is recommended for use in CCITT and in this case, TSSI is guaranteed by the network. Therefore, the video bitrate becomes 5x64kbit/s. Consequently, the video bitrate for p > 1 will be (p-1)x64kbit/s.

In Flexible Hardware experiments, however, FAS (and BAS?) may be provided in video channels for synchronization depending upon the purpose of the FH experiment and leaving the issue of interconnection between Ho and 6B channels to the decision of higher bodies. In this case, FHs that employs only the Ho channel (not the 6B channel) need not implement synchronization functions using FAS, and need only insert spare bits in the positions of FAS (and BAS). Interconnection between these FHs and FHs that use 6B for the 384kbit/s channel must be made through the Ho channel.

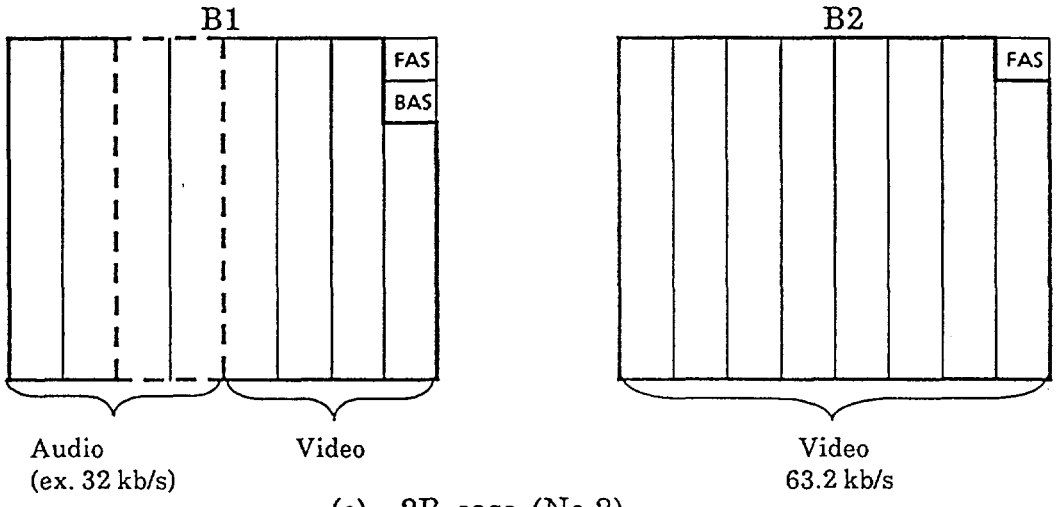
The Proposed bit allocation for FH experiments is illustrated in the following figures.



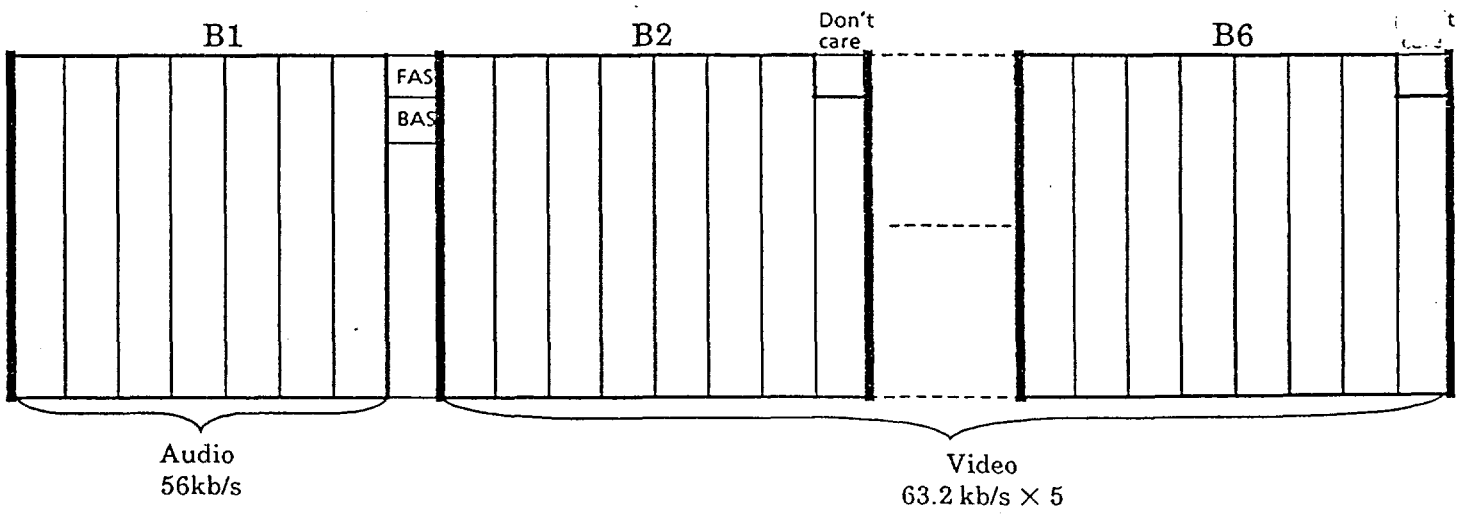

(a) 1B case




(b) 2B case (No.1)




(c) 2B case (No.2)




(d) 6B case