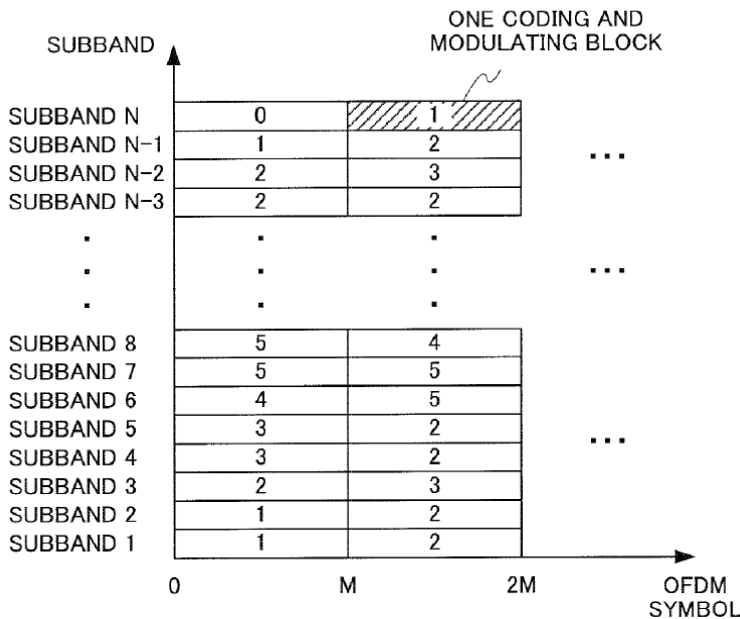


Patent Owner's Demonstrative
U.S. Patent No. 7,848,439

IPR2018-01555 and -01581
January 8, 2019
Oral Hearing

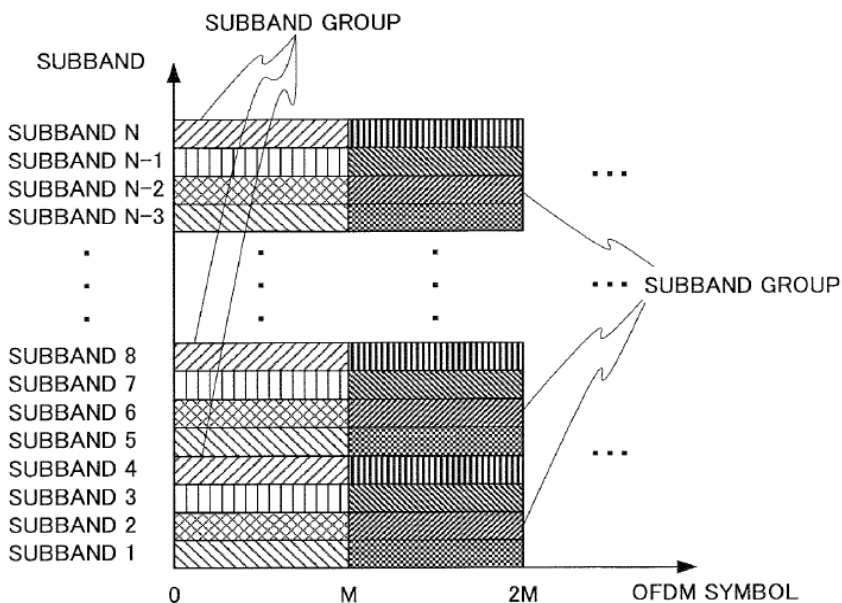
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adaptivity in this case refers to adaptivity at two time domain and frequency domain. Currently, a configuration, AMC in OFDM is divided into based on subcarriers and AMC based on subband based on subcarriers referred to here refers to transmission using a modulation method and a method that are different per OFDM subcarrier subcarrier as a minimum unit of adaptivity. However, based on subcarriers is very difficult to be implemented in addition, has the problem that feedback overhead is large. Typically, it is difficult to implement an AMC based on subcarriers in an actual system. As another configuration in OFDM, a subband adaptive modulation, namely, a subband adaptive modulation related art is, relatively, typically used.

FIG. 2 shows subband adaptive modulation and the related art.

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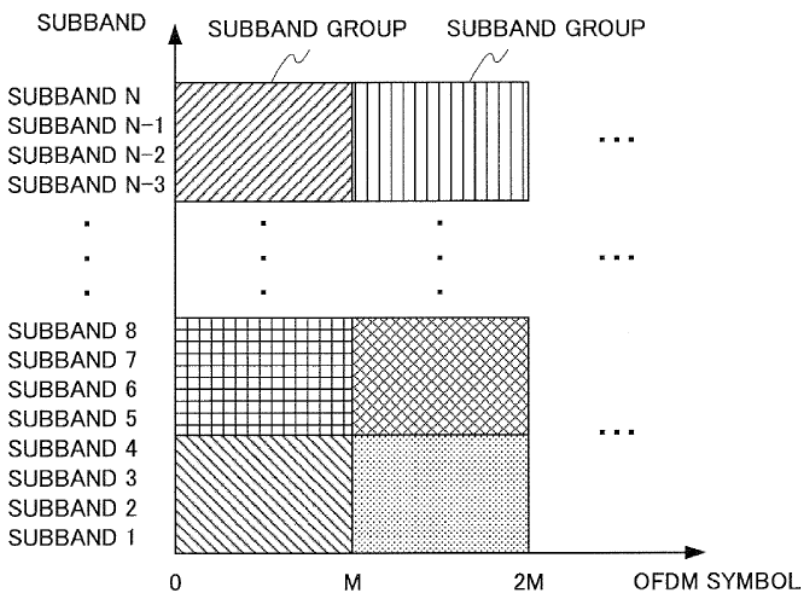


DISCLOSURE OF THE INVENTION

Problems to be Solved by the Invention

The object of the present invention is therefore to provide a communication apparatus, a communication method capable of increasing the utilization rate of a system and particularly increasing the utilization rate based on high-speed fading and reducing the degree of difficulty of the system and reducing the feedback overhead compared to adaptive methods of the related art by combining subbands on a frequency domain of a subcarrier in a communication system based on a fixed rule to as to give subbands into groups, and then selecting modulation and coding for use during joint coding with respect to each group.

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DISCLOSURE OF THE INVENTION

Problems to be Solved by the Invention

The object of the present invention is therefore to provide a communication apparatus, a communication method capable of increasing the utilization rate of a system and particularly increasing the utilization rate based on high-speed fading and channel estimation error, reducing the degree of difficulty of channel estimation and reducing the feedback overhead compared to conventional adaptive methods of the related art by combining subbands on a frequency domain of a subcarrier in a communication system based on a fixed rule to as to give subbands into groups, and then selecting modulation and coding schemes for use during joint coding with respect to each subband group.

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