

ABSTRACT**MULTIPLE FREQUENCY BAND OPERATION IN WIRELESS NETWORKS**

Embodiments for bandwidth allocation methods, detecting interference with other systems, and/or redeploying in alternate bandwidth are described. Higher bandwidth channels may be deployed at channel boundaries (410), which are a subset of those for lower bandwidth channels (310), and may be restricted from overlapping. Interference may be detected (930) on primary, secondary, or a combination of channels, and may be detected in response to energy measurements (910) of the various channels. When interference is detected, a higher bandwidth Basic Service Set (BSS)(100) may be relocated to an alternate channel, or may have its bandwidth reduced to avoid interference. Interference may be detected based on energy measured on the primary or secondary channel, and/or a difference between the two. An FFT (1010) may be used in energy measurement in either or both of the primary and secondary channels. Stations may also monitor messages from alternate systems to make channel allocation decisions. Various other aspects are also presented.

Figure 6