



ABSTRACT OF THE DISCLOSURE

Subtractive CDMA demodulation optimally decodes a coded information signal embedded in many other overlapping signals making up a received, composite signal. A radio receiver correlates a unique code corresponding to the desired signal to be decoded with the composite signal. Moreover, after each information signal is successfully decoded, it is recoded and removed from the composite signal. As a result, subsequent correlations are performed with greater accuracy. Subtractive CDMA demodulation is enhanced by decoding the composite signal in the order of strongest to weakest signal strength. Interference caused by the presence of the strongest information signal and the composite signal during the decoding of weaker signals is removed. The individual information signals are assigned a unique block error correction code which is correlated with the composite signal using Fast Walsh transforms. Correlated signals are recoded using inverted Fast Walsh transforms and removed from the composite signal.