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(54) Title: HOMODYNE CELLULAR BASE STATION

(57) Abstract

A method and apparatus for providing a homodyne cellular base station is disclosed. A cellular antenna is coupled to both a conventional signal channel receiver and a homodyne receiver. The conventional single channel receiver is configured to receive the control channel from a cellular band signal. The homodyne receiver utilizes a quadrature downconverter and local oscillator to receive the voice channels. The local oscillator is tuned to the frequency of the control channel to limit all DC offsets to the control channel within the homodyne receiver. All DC offsets and the control channel frequency are filtered from the homodyne receiver signal and, the filtered signal is then digitized and digitally processed to separate the signal into each of the traffic channels.

