

ABSTRACT

Method and system for health monitoring using Amplitude Modulated Continuous Wave microwave signal

Health signal monitoring using continuous wave microwave signals is often affected by phase wrapping and null point detection issues. The disclosure herein generally relates to health monitoring, and, more particularly, to a method and a monitoring system for health monitoring using Amplitude Modulated Continuous Wave (AMCW) microwave signals. In this design of the monitoring system, the AMCW microwave signal comprises of a carrier signal and a modulating signal. The modulating signal is used for measuring heart rate and breathing rate of a subject, while the carrier signal is used to tune antenna size in the monitoring system. As the probing wavelength and the antenna size are independent of each other in this design of the monitoring system, the probing wavelength can be adjusted such that effect of the phase wrapping can be minimized. The system addresses the null point measurement problem by quadrature modulating the modulating signal.

To be published with FIG.1