INTERFERENCE CANCELLATION APPARATUS AND METHOD

ABSTRACT

Embodiments of the present invention relate to the field of communications technologies, and provide an interference cancellation apparatus and method, which can avoid being limited by a dynamic range of an ADC/DAC and can cancel a second-type self-interference component effectively. The method includes: acquiring a radio frequency reference signal; receiving a radio frequency receive signal by using a main receive antenna; canceling a first-type self-interference component in the radio frequency receive signal according to the radio frequency reference signal, to generate a first processed signal; acquiring the reconstructed self-interference signal according to a self-interference channel parameter and the radio frequency reference signal; canceling a second-type self-interference ~~signal~~ component in the first processed signal according to the reconstructed self-interference signal to generate a second processed signal; performing down-conversion processing on the second processed signal to generate a third processed signal; performing analog to digital conversion on the third processed signal to generate a digital signal; and acquiring a digital baseband reference signal, and performing self-interference channel estimation according to the digital baseband reference signal and the digital signal to acquire the self-interference channel parameter. The present invention is used for interference cancellation.

FIGURE 12