

عنوان مقاله:

Compressed Receiver for Ultra-Wideband Communication

محل انتشار:

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خلاصه مقاله:

The high bandwidth of ultra-wideband (UWB) communication which uses ultra-short pulses, makes Nyquist sampling a formidable challenge. Therefore, compressed sensing is used to overcome this problem. In this paper, a compressed system is used and two different compressed receivers are designed and developed for UWB communication systems. One of them is based on the channel estimation and RAKE receiver and the other one is based on a GLRT detector. Both of them use minimum samples. The signaling scheme is pilot based. Simulation results are shown that these receivers have a comparable performance to the conventional and Nyquist rate based receivers.

کلمات کلیدی:

UWB communication; Compressed sensing; GLRT detector; RAKE receiver

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