

METHOD FOR TRANSMITTING RANGING SIGNAL IN UWB, APPARATUS, AND READABLE STORAGE MEDIUM

ABSTRACT

This application relates to the field of wireless communication, and in particular, to a method
5 for transmitting a ranging signal in a UWB, an apparatus, and a readable storage medium, and is
applied to a wireless local area network supporting the 802.15.4z standard. The method includes:
a first device constructs a ranging signal waveform through time reversal by using a channel
impulse response of a channel between the first device and a second device or a received signal
sent by the second device, to implement matching between a ranging signal and the channel; and
10 the second device completes ToF measurement based on a received signal by using a correlation
operation, and determines, through sampling, determining, and a correlation operation, whether a
ranging process is interfered with, to implement integrity protection for the ranging signal.
According to embodiments of this application, a receive end can have a capability of detecting
whether a ranging process is interfered with, thereby ensuring integrity of a ranging signal without
15 compromising ranging performance of a system.

Figure 3