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(54) Title: WIRELESS SENSING METHOD AND APPARATUS

(54) 发明名称: 无线感知方法及装置

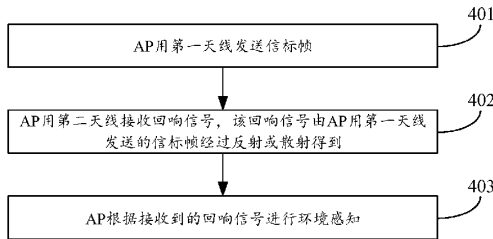


图 4

401 An AP uses a first antenna to send a beacon frame
402 The AP uses a second antenna to receive an echo signal, wherein the echo signal is obtained by reflecting or scattering the beacon frame sent by the AP using the first antenna
403 The AP performs environmental sensing on the basis of the received echo signal

(57) Abstract: Disclosed are a wireless sensing method and apparatus, which belong to the technical field of sensing. An AP in a WLAN uses a first antenna to send a beacon frame, and uses a second antenna to receive an echo signal, wherein the echo signal is obtained by reflecting or scattering the beacon frame; and the AP then performs environmental sensing on the basis of the received echo signal. The present application utilizes the AP's capability of receiving and sending a message on its own, the same AP sends the beacon frame and receives the echo signal of the beacon frame, and with respect to the AP, a signal receiving and sending position is always known, thus helping to improve the precision of environmental sensing; and the position where the AP is deployed is not limited, and thus the AP can be flexibly applied to various scenarios. In addition, the beacon frame is sent periodically to announce the presence of the AP. Therefore, the AP utilizes the beacon frame to realize environmental sensing, without the need to additionally send packets, such that channel resources can be saved on, and environmental sensing can be completed in a normal communication process, thus realizing integrated sensing and communication.

(57) 摘要: 公开了一种无线感知方法及装置, 属于感知技术领域。WLAN中的AP用第一天线发送信标帧, 并用第二天线接收回响信号, 该回响信号由该信标帧经过反射或散射得到。然后AP根据接收到的回响信号进行环境感知。本申请利用AP可自收发报文的能力, 由同一AP发送信标帧并接收该信标帧的回响信号, 相较于该AP而言, 信号收发位置始终是已知的, 因此有助于提升环境感知精度, 且AP的部署位置不受限制, 可灵活应用于各种场景。另外, 信标帧是周期性发送的, 以宣布AP的存在。因此, AP利用信标帧实现环境感知无需额外发包, 可以节约信道资源, 而且可以在正常通信过程中完成环境感知, 实现通信感知一体化。

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