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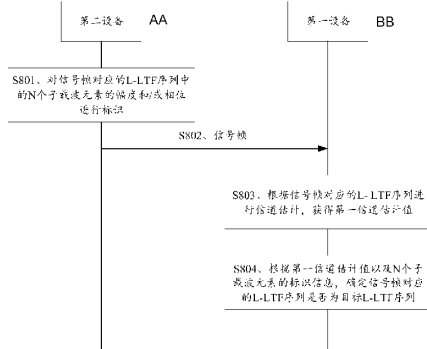
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(54) **Title:** SIGNAL IDENTIFYING METHOD AND COMMUNICATION APPARATUS

(54) 发明名称: 信号识别方法及通信装置



S801 Identify the amplitudes and/or phase change values of N subcarrier elements in an L-LTF sequence corresponding to a signal frame
S802 Signal frame
S803 Perform channel estimation according to the L-LTF sequence corresponding to the signal frame to obtain a first channel estimate value
S804 According to the first channel estimate value and identification information of the N subcarrier elements, determine whether the L-LTF sequence corresponding to the signal frame is a target L-LTF sequence
AA Second device
BB First device

图 8

(57) **Abstract:** A signal identifying method and a communication apparatus, capable of solving the problem of data packet loss caused by the fact that a receiving end device is unable to be accurately synchronized with a target frame due to frame overlapping during a signal transmission process, and applicable to UWB-based wireless personal area networks, WiFi, sensing systems, and other systems. The method comprises: a first device performs channel estimation according to an L-LTF sequence corresponding to a received signal frame to obtain a first channel estimate value, and according to the first channel estimate value and identification information of N subcarrier elements, determines whether the L-LTF sequence corresponding to the signal frame is a target L-LTF sequence, wherein the first channel estimate value comprises channel estimate values corresponding to M subcarrier elements in the L-LTF sequence corresponding to the signal frame, the identification information of the N subcarrier elements comprises the serial numbers of the N subcarrier elements and the amplitudes and/or phase change values corresponding to the N subcarrier elements, M and N are positive integers, M is greater than 1, and N is greater than or equal to 1 and less than or equal to M.

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NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), 欧亚
(AM, AZ, BY, KG, KZ, RU, TJ, TM), 欧洲 (AL, AT, BE,
BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR,
HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO,
PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF,
CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN,
TD, TG)。

本国际公布：
— 包括国际检索报告(条约第21条(3))。

(57) 摘要：一种信号识别方法及通信装置，能够解决由于信号传输过程中存在帧交叠，接收端设备无法准确同步到目标帧导致数据丢包的问题，可应用于基于UWB的无线个人局域网、WiFi、和感知等系统中。该方法包括：第一设备根据接收的信号帧对应的L-LTF序列进行信道估计，获得第一信道估计值，并根据第一信道估计值以及N个子载波元素的标识信息，确定信号帧对应的L-LTF序列是否为目标L-LTF序列。其中，第一信道估计值包括信号帧对应的L-LTF序列中M个子载波元素对应的信道估计值，N个子载波元素的标识信息包括N个子载波元素的序号和N个子载波元素对应的幅度和/或相位变化值，M、N为正整数， $M>1$ ， $1\leq N\leq M$ 。