US 20230231682A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2023/0231682 A1**

ABDELGHAFFAR et al. (43) **Pub. Date: Jul. 20, 2023**

(54) **SOUNDING REFERENCE SIGNAL (SRS) TIME BUNDLING FOR PARTIAL FREQUENCY SOUNDING**

(71) Applicant: **QUALCOMM Incorporated**, San Diego, CA (US)

(72) Inventors: **Muhammad Sayed Khairy ABDELGHAFFAR**, San Jose, CA (US); **Alexandros MANOLAKOS**, Escondido, CA (US); **Tingfang JI**, San Diego, CA (US); **Runxin WANG**, San Diego, CA (US); **Pinar SEN**, San Diego, CA (US)

(21) Appl. No.: **18/001,708**

(22) PCT Filed: **Jul. 16, 2021**

(86) PCT No.: **PCT/US2021/042099**

§ 371 (c)(1),
(2) Date: **Dec. 13, 2022**

(30) **Foreign Application Priority Data**

Aug. 24, 2020 (GR) 20200100506

Publication Classification

(51) **Int. Cl.**
H04L 5/00 (2006.01)

(52) **U.S. Cl.**
CPC ***H04L 5/0051*** (2013.01); ***H04L 5/0094*** (2013.01)

(57) **ABSTRACT**

Aspects for time bundling an SRS resource over a plurality of instances are disclosed. The apparatus may include a user equipment (UE). The user equipment may receive a configuration from a base station for time-bundling at least one sounding reference signal (SRS) resource. The time-bundling may be performed by the UE transmitting a plurality of SRS signals at different times using an identical center frequency and at least two different frequency resource allocations. The UE may transmit the plurality of SRS signals based on the configuration.