



US 20230232392A1

(19) **United States**(12) **Patent Application Publication**
Saeki(10) **Pub. No.: US 2023/0232392 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **TRANSMITTER AND COMMUNICATION SYSTEM**(71) Applicant: **Sony Group Corporation**, Tokyo (JP)(72) Inventor: **Takanori Saeki**, Kanagawa (JP)(21) Appl. No.: **18/111,071**(22) Filed: **Feb. 17, 2023**(30) **Foreign Application Priority Data**

Mar. 25, 2014 (JP) 2014-062570

Publication Classification(51) **Int. Cl.****H04W 72/044** (2006.01)**H04L 25/02** (2006.01)**H04W 52/42** (2006.01)**H04W 52/50** (2006.01)(52) **U.S. Cl.**CPC **H04W 72/0473** (2013.01); **H04L 25/0288**(2013.01); **H04W 52/42** (2013.01); **H04W****52/50** (2013.01)**Related U.S. Application Data**

(63) Continuation of application No. 17/371,916, filed on Jul. 9, 2021, now Pat. No. 11,606,795, which is a continuation of application No. 15/930,723, filed on May 13, 2020, now Pat. No. 11,096,174, which is a continuation of application No. 16/235,555, filed on Dec. 28, 2018, now Pat. No. 10,687,336, which is a continuation of application No. 15/122,312, filed on Aug. 29, 2016, now Pat. No. 10,194,443, filed as application No. PCT/JP2015/056305 on Mar. 4, 2015.

(57)

ABSTRACT

A transmitter of the present disclosure includes: an output terminal; a driver that performs transition of a voltage of the output terminal among a plurality of voltages; and a controller that controls the driver to cause transition start timing in one voltage transition in voltage transition among the plurality of voltages to be later than transition start timing in another voltage transition.

