US 20230232269A1

(19) **United States**

(12) **Patent Application Publication**

(10) **Pub. No.: US 2023/0232269 A1**

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

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(54) **COMMUNICATION SYSTEM, BASE STATION AND COMMUNICATION TERMINAL DEVICE**

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(21) Appl. No.: **18/126,816**

(22) Filed: **Mar. 27, 2023**

Related U.S. Application Data

(60) Continuation of application No. 17/168,707, filed on Feb. 5, 2021, which is a division of application No. 16/097,901, filed on Oct. 31, 2018, now Pat. No. 10,952,089, filed as application No. PCT/JP2017/017367 on May 8, 2017.

(30) **Foreign Application Priority Data**

May 11, 2016 (JP) 2016-095467
Sep. 20, 2016 (JP) 2016-182987

Publication Classification

(51) **Int. Cl.**

H04W 24/10	(2006.01)
H04W 16/28	(2006.01)
H04W 92/20	(2006.01)
H04B 7/04	(2006.01)
H04B 17/336	(2006.01)
H04W 76/27	(2006.01)
H04B 7/0452	(2006.01)
H04B 7/06	(2006.01)
H04W 74/08	(2006.01)

(52) **U.S. Cl.**

CPC ***H04W 24/10*** (2013.01); ***H04W 16/28*** (2013.01); ***H04W 92/20*** (2013.01); ***H04B 7/04*** (2013.01); ***H04B 17/336*** (2015.01); ***H04W 76/27*** (2018.02); ***H04B 7/0452*** (2013.01); ***H04B 7/0626*** (2013.01); ***H04W 74/0833*** (2013.01)

(57) **ABSTRACT**

Provided is a communication system capable of suppressing, under communication environment including a plurality of cells, degradation in communication quality and decrease in communication rate and communication capacity due to interference from the other cells. Each of the cells includes a plurality of antenna elements, and performs radio communication with a communication terminal device through the antenna elements. Each of the cells notifies the other cells of settings for measuring channel information on a channel for performing radio communication of its own cell. Each of the cells may notify a communication terminal device being served thereby of the settings for measuring the channel information of its own cell. Here, the communication terminal device measures the channel information based on the settings notified from each of the cells, and reports a result of the measured channel information to a corresponding one of the cells when the result satisfies a predetermined reporting condition.