



US 20240214022A1

(19) **United States**

(12) **Patent Application Publication**
AAGIRU et al.

(10) **Pub. No.: US 2024/0214022 A1**

(43) **Pub. Date: Jun. 27, 2024**

(54) **WIRELESS COMMUNICATION,
MAINTAINING WIRELESS THROUGHPUT,
AND DETECTION AND MANAGEMENT OF
HUMAN BODY PROXIMITY TO
TRANSMITTING ANTENNAS**

(71) Applicant: **Intel Corporation**, Santa Clara, CA
(US)

(72) Inventors: **Vamshi Krishna AAGIRU**, Bangalore
(IN); **Santhosh AP**, Bangalore (IN);
Praveen Kashyap Ananta BHAT,
Bangalore (IN); **Arjun C**, Bangalore
(IN); **Shailendra Singh CHAUHAN**,
Bangalore (IN); **Sajal Kumar DAS**,
Bangalore (IN); **Walid EL HAJJ**,
Antibes (FR); **Isha GARG**, Bangalore
(IN); **Sagar GUPTA**, Ghaziabad (IN);
Mallari HANCHATE, Bangalore (IN);
Mythili HEGDE, Bangalore (IN); **Siva
Prasad JANGILI GANGA**, Jambagh
(IN); **Satyajit Siddharay KAMAT**,
Bangalore (IN); **Noam KOGOS**, Ramat
Hasharo (IL); **Ronen KRONFELD**,
Shoham (IL); **Adiel LANGER**, Petah
Tiqwa (IL); **Gil MEYUHAS**, Tel-Aviv
(IL); **Padmesh MURUGAN LATHA**,
Bangalore (IN); **Vishram Shriram
PANDIT**, Bangalore (IN); **Abhijith
PRABHA**, Piravom (IN); **Manisha
RAIGURU**, Bangalore (IN); **Ehud
RESHEF**, Qiryat Tivon (IL); **Amir
RUBIN**, Kiryat Ono (IL); **Shubham
Kumar SAHU**, Balasore (IN);
Gurpreet SANDHU, Bangalore (IN);

Michael SHACHAR, Kfar Glikson
(IL); **Harry SKINNER**, Beaverton, OR
(US); **Madhukiran
SRINIVASAREDDY**, Bangalore (IN);
Gokul SUBRAMANIAM, Bangalore
(IN); **Maruti TAMRAKAR**,
Chhattisgarh (IN); **Jayprakash
THAKUR**, Bangalore (IN); **Vijaya
Prasad UMMELLA**, Bangalore (IN);
Yagnesh Vinodrai WAGHELA,
Bangalore (IN)

(21) Appl. No.: **18/145,860**

(22) Filed: **Dec. 23, 2022**

Publication Classification

(51) **Int. Cl.**

H04B 1/3827 (2006.01)

H04W 52/36 (2006.01)

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

CPC **H04B 1/3838** (2013.01); **H04W 52/365**
(2013.01); **H04B 2001/3844** (2013.01)

(57)

ABSTRACT

Various principles and methods are described herein to improve wireless communication in a user computing device. Certain aspects of the disclosure describe management of wireless transmissions relative to various regulations related to a specific absorption rate. Other aspects of the disclosure relate to detection of user proximity to a transmitting antenna. Other aspects relate to alternative strategies to improve wireless communication, such as selection of alternate antennas or baseband modems, or changes in device orientation.

