

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
17 June 2021 (17.06.2021)



(10) International Publication Number
WO 2021/118453 A1

(51) International Patent Classification:
H02J 50/20 (2016.01)

(21) International Application Number:
PCT/SG2019/050609

(22) International Filing Date:
10 December 2019 (10.12.2019)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant: **AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH** [SG/SG]; 1 Fusionopolis Way, #20-10, Connexis North Tower, Singapore 138632 (SG).

(72) Inventors: **SALAHUDDIN, Raju**; c/o Industry Development, Institute of Microelectronics, 2 Fusionopolis Way, #08-02 Innovis Tower, Singapore 138634 (SG). **KUMARASAMY, Raja Muthusamy**; c/o Industry Development, Institute of Microelectronics, 2 Fusionopolis Way, #08-02 Innovis Tower, Singapore 138634 (SG). **YAN, Dan Lei**; c/o Industry Development, Institute of Microelectronics, 2 Fusionopolis Way, #08-02 Innovis Tower, Singapore 138634 (SG).

(74) Agent: **ALLEN & GLEDHILL LLP**; One Marina Boulevard #28-00, Singapore 018989 (SG).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,

CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, 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).

Published:

- with international search report (Art. 21(3))
- in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE

(54) Title: A WIRELESS POWER RECEIVER

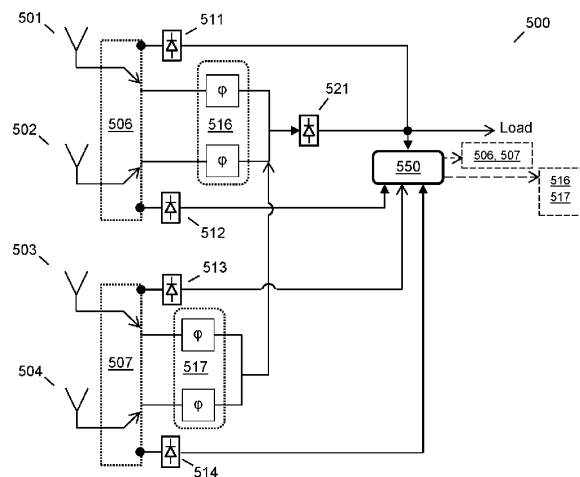


FIGURE 5

(57) Abstract: This disclosure relates to a power efficient wireless power receiver that is configured to receive and convert wireless power to direct-current (DC) power with minimal wastage. In particular, the receiver is able to selectively switch between a DC power combining topology and a radio-frequency (RF) power combining topology based on the amount of power that has been received so that the maximum amount of power received is optimized.

WO 2021/118453 A1