

## (19) United States

# (12) Patent Application Publication (10) Pub. No.: US 2022/0354033 A1

Powell, JR. et al.

Nov. 3, 2022 (43) **Pub. Date:** 

#### (54) FERRITE SHIELD LOCATED INTERMEDIATE A WIRELESS POWER TRANSMITTER AND RECEIVER AND METHOD OF USING SAME

(71) Applicant: Aptiv Technologies Limited, St. Michael (BB)

(72) Inventors: George Powell, JR., Cortland, OH (US); James Cook, Poland, OH (US)

(21) Appl. No.: 17/732,441

(22) Filed: Apr. 28, 2022

### Related U.S. Application Data

(60) Provisional application No. 63/181,938, filed on Apr. 29, 2021.

#### **Publication Classification**

(51) Int. Cl. H05K 9/00 (2006.01)H02J 50/00 (2006.01)H02J 50/10 (2006.01)

(52)U.S. Cl. CPC ...... H05K 9/0088 (2013.01); H02J 50/005 (2020.01); H02J 50/10 (2016.02)

#### (57)ABSTRACT

An adapter device is configured to interface between a wireless power receiver that includes a first array of magnets arranged around a receiver coil in the wireless power receiver and a wireless power transmitter lacking a corresponding array of magnets arranged around a source coil in the wireless power transmitter. The adapter device includes a substrate and a ferrite shield formed of a magnetic material and configured to be placed between the wireless power receiver and the wireless power transmitter.

