

Title (en)

CHARGING LONG-RANGE RADIO FREQUENCY IDENTIFICATION TAGS

Title (de)

AUFLADEN VON FUNKIDENTIFIKATIONSETIKETTEN MIT GROSSER REICHWEITE

Title (fr)

CHARGE D'ÉTIQUETTES D'IDENTIFICATION PAR RADIOFRÉQUENCE DE LONGUE PORTÉE

Publication

**EP 3400641 A4 20190515 (EN)**

Application

**EP 17735893 A 20170105**

Priority

- US 201662276285 P 20160108
- IB 2017000174 W 20170105

Abstract (en)

[origin: WO2017118914A1] A system for charging long-range radio frequency identification tags includes a plurality of physically separated transmitters. Each transmitter is configured to direct a respective energy beam to an energy location. A tag is at the energy location. The tag is configured to store a received energy from the energy location, to sense a sensor data and to transmit the sensor data to a reader after a capacitor connected to the tag charges to an operating voltage level. The capacitor is charged by the received energy. A controller is configured to align at the energy location for each of the plurality of transmitters, a respective frequency, and at least one of a respective phase, and a respective polarity of each respective energy beam to maximize an energy level at the energy location in response to a device response of the tag.

IPC 8 full level

**H02J 50/80** (2016.01); **G08C 17/02** (2006.01); **H02J 7/02** (2016.01); **H02J 7/34** (2006.01); **H02J 50/20** (2016.01); **H02J 50/40** (2016.01); **H02J 50/90** (2016.01); **H04Q 9/00** (2006.01)

CPC (source: EP KR US)

**G08C 17/02** (2013.01 - EP KR US); **H02J 50/20** (2016.02 - EP KR); **H02J 50/40** (2016.02 - EP KR US); **H02J 50/80** (2016.02 - EP KR US); **H02J 50/90** (2016.02 - EP US); **H04Q 9/00** (2013.01 - EP KR); **H02J 7/345** (2013.01 - EP); **H04Q 2209/47** (2013.01 - EP KR); **H04Q 2209/88** (2013.01 - EP KR)

Citation (search report)

- [I] US 2012313577 A1 20121213 - MOES BENJAMIN C [US], et al
- [A] US 2015318730 A1 20151105 - BHARGAVA KUNAL [NZ], et al
- See references of WO 2017118914A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**WO 2017118914 A1 20170713**; CN 108702035 A 20181023; EP 3400641 A1 20181114; EP 3400641 A4 20190515; JP 2019504600 A 20190214; KR 20180103094 A 20180918

DOCDB simple family (application)

**IB 2017000174 W 20170105**; CN 201780014998 A 20170105; EP 17735893 A 20170105; JP 2018535871 A 20170105; KR 20187022782 A 20170105