

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

SCRAMOGE TECHNOLOGY LTD.,
Patent Owner.

IPR2022-00117
Patent 9,843,215 B2

Before JAMESON LEE, KARL D. EASTHOM, and
BRIAN J. McNAMARA, *Administrative Patent Judges*.

McNAMARA, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. BACKGROUND

In response to a Petition (“Pet.”), on May 12, 2022, we instituted an *inter partes* review of claims 1, 5, 8–13, and 17–22 of U.S. Patent No. 9,843,215 B2 (“the ’215 patent”). Paper 9 (“Dec. to Inst.”). Patent Owner filed a Patent Owner Response (Paper 17, “PO Resp.”), Petitioner filed a Petitioner Reply (Paper 22, “Reply”), and Patent Owner filed a Sur-reply (Paper 25, “Sur-reply”). A transcript of an oral hearing held on February 9, 2023 (Paper 32, “Hr’g Tr.”) has been entered into the record.

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a). We base our decision on the preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d).

Having reviewed the arguments of the parties and the supporting evidence, we conclude that Petitioner has demonstrated by a preponderance of the evidence that the challenged claims are unpatentable.

II. THE ’215 PATENT

The ’215 patent concerns a wireless charging and communication board and device. Ex. 1001, 1:18–20. Figure 1 of the ’215 patent is reproduced below.

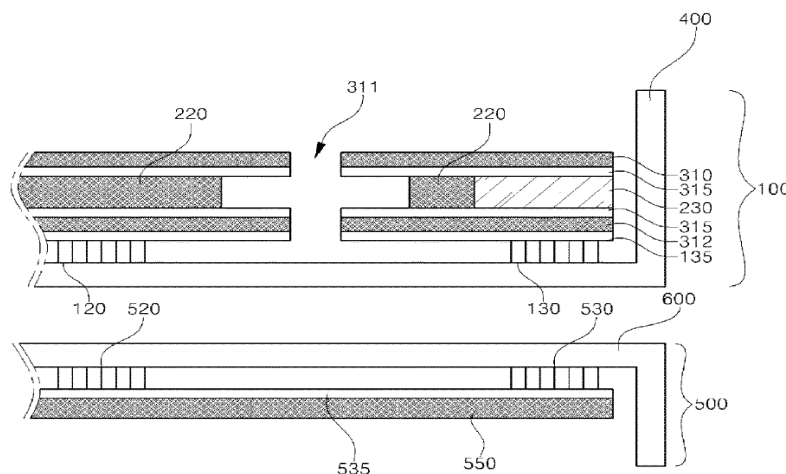


Figure 1 of the ’215 patent

Figure 1 of the '215 patent shows an embodiment of a charging and communication device that includes receiver 100 having reception coil pattern 120 for wireless power conversion and reception coil 130 for near field communication, as well as transmitter 500 having transmission coil pattern 520 for wireless power conversion and transmission coil pattern 530 for near field communication. *Id.* at 2:54–3:2, Fig. 1. Alternating current flowing in transmission coil pattern 520 induces current in reception coil pattern 120 that is transmitted to a separate circuit and rectified. *Id.* at 3:6–19. Receiver 100 includes a wireless charging and communication board and housing 400 that radiates heat from coil patterns 120, 130 to the outside. *Id.* at 3:33–37. The wireless communication board includes soft magnetic layer 220, 230; polymeric material layer 310, 312 disposed on one surface and the other surface of soft magnetic layer 220, 230 to extend longer than an exposed portion thereof and adhered thereto by adhesive layer 315; coil patterns 120, 130; and processing hole 311. *Id.* at 3:38–56, 4:39–57.

Figure 3 of the '215 patent is reproduced below.

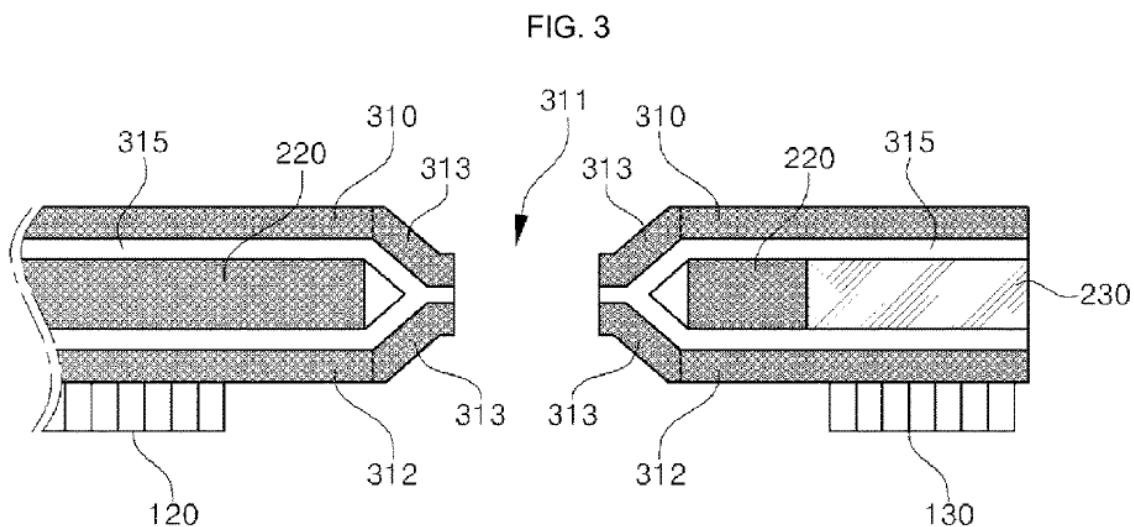


Figure 3 of the '215 patent is a cross-sectional view of an embodiment of a wireless charging and communication board. *Id.* at 2:1–3. Figure 3 shows polymeric material layers 310, 312 arranged on the surfaces of soft magnetic layer 220, 230 and extending longer than an exposed portion of soft magnetic layer 220, 230, and material connector 313 connecting first polymeric layer 310 and second polymeric layer 312, thereby surrounding the exposed portion of soft magnetic layer. *Id.* at 5:24–37. The '215 patent further explains that “a term of the polymeric material connector 313 can be used with a term of the extending portion,” so that “a first extending portion may be extended in the first polymeric material layer 310, and a second extending portion may be extended in [the] second polymeric material layer 312.” *Id.* at 5:37–42. “Accordingly, in the embodiment of FIG. 3, the exposed portion may refer to an end exposed by a processing hole 311 and the polymeric material connector 313 surrounding the exposed portion of the soft magnetic core 220 may prevent water penetration from the outside.” *Id.* at 5:43–47.

III. ILLUSTRATIVE CLAIM

Claim 1, reproduced below with the paragraph designations used in the Petition, is representative of the subject matter of the '215 patent.

- [1.0] A wireless charging and communication board, comprising:
 - [1.1] a plurality of soft magnetic layers comprising a first soft magnetic layer and a second soft magnetic layer;
 - [1.2] a first polymeric layer arranged on a first surface of the plurality of soft magnetic layers;
 - [1.3] a second polymeric material layer arranged on a second surface of the plurality of soft magnetic layers opposed to the first surface; and
 - [1.4] a coil pattern arranged on the second polymeric material layer;

- [1.5] wherein the plurality of soft magnetic layers are positioned between the first polymeric material layer and the second polymeric material layer,
- [1.6] wherein the first polymeric material layer includes a first extending portion extending longer than the plurality of soft magnetic layers,
- [1.7] wherein the second polymeric material layer includes a second extending portion extending longer than the plurality of soft magnetic layers,
- [1.8] wherein the first extending portion and the second extending portion are connected to each other,
- [1.9] wherein at least one of the first soft magnetic layer or the second soft magnetic layer is made with one or more of an amorphous alloy, a crystalline alloy, an amorphous alloy ribbon, a nanocrystalline ribbon, or a silicon steel plate.

IV. GROUNDS OF INSTITUTION

We instituted trial on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1, 8–11, 13, 17, 19–21	103	Sawa, ¹ Park ²
5, 12, 18, 22	103	Sawa, Park, Inoue ³

V. LEVEL OF ORDINARY SKILL

In the Decision to Institute, we applied Petitioner’s description of a person of ordinary skill as one having a bachelor’s degree in electrical engineering, or equivalent training, and approximately two years of experience working in the field of wireless power transmission or experience and additional education that could have substituted for each other. Dec. to Inst. 13–14. Neither party disputes this description, and we apply it in this Decision.

¹ U.S. Patent No. 9,443,648 B2 to Sawa (Ex. 1005).

² U.S. Patent No. 8,922,162 B2 to Park (Ex. 1006).

³ U.S. Patent No. 8,922,160 B2 to Inoue (Ex. 1007).

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.