

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SHENZHEN XINZEXING E-COMMERCE CO., LTD.,
Petitioner,

v.

SHENZHEN CAR KU TECHNOLOGY CO., LTD.,
Patent Owner.

IPR2024-00222
Patent 9,643,506 B2

Before RICHARD M. LEBOVITZ, GARTH D. BAER, and
JULIA HEANEY, *Administrative Patent Judges*.

BAER, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Shenzhen Xinzexing E-commerce Co., Ltd. (“Petitioner”) filed a Petition (Paper 2, “Pet.”), requesting an *inter partes* review of claims 1–3, 6–23, and 25–33 of U.S. Patent No. 9,643,506 B2 (Ex. 1001, “the ’506 patent”). Shenzhen Carku Technology Co., Ltd. (“Patent Owner”) did not file a Preliminary Response. After we granted adverse judgement in Petitioner’s favor (Paper 4), the Director remanded this proceeding to the Board to determine whether the Petition demonstrates a reasonable likelihood that at least one of the claims challenged in the Petition is unpatentable (Paper 7).

We have authority under 35 U.S.C. § 314 to determine whether to institute *inter partes* review. For the reasons discussed below, we institute *inter partes* review of the challenged claims.

II. BACKGROUND

A. RELATED MATTERS

The ’506 patent is at issue in *Shenzhen CARKU Technology Co., Ltd. v. Shenzhen Xinzexing E-commerce Co., Ltd.*, 1-22-cv-03403 (N.D. Ill.). Pet. 91, Paper 5, 1.

B. THE ’506 PATENT

The ’506 patent describes a “portable backup charger.” Ex. 1001, code (57). Figure 1 of the ’506 patent is reproduced below.

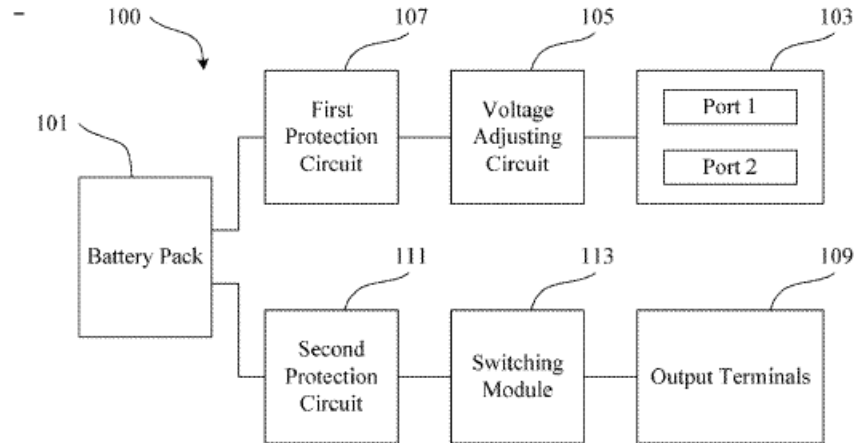


Figure 1

Figure 1 “is a block diagram of a portable backup charger.” Ex. 1001, 3:8.

C. THE CHALLENGED CLAIMS

Of challenged claims 1–3, 6–23, and 25–33, claims 1 and 21 are independent. Claim 1 is representative and reproduced below:

1. A portable backup charger, comprising:
 - a battery pack having at least one battery cell;
 - at least one output port coupled to the battery pack, wherein the battery pack is configured to output a first current through one or more output ports of the at least one output port in a first operating mode;
 - a pair of output terminals coupled to the battery pack and having a current path to the battery pack different from that of the at least one output port to the battery pack, wherein the battery pack is configured to output a second current capable of starting a vehicle engine through the pair of output terminals in a second operating mode, wherein the second current is higher than the first current;
 - a first protection circuit coupled to the battery pack and configured to protect the battery pack when the battery pack is working in the first operating mode; and

a second protection circuit coupled to the battery pack and configured to prevent overcurrent condition of the second current when the battery pack is working in the second operating mode.

Ex. 1001, 8:22–42.

D. ASSERTED GROUNDS OF UNPATENTABILITY

Petitioner asserts the following grounds of unpatentability. Pet. 1.

Reference(s)/Basis	35 U.S.C §	Challenged Claim(s)
Chen ¹	102	1, 9, 11–14, 16–19, 21, 26–28, 30–33
Chen, White ²	103	1–2, 6–9, 11–14, 16–22, 25–28, 30–33
Chen, Richardson ³	103	10
Chen, Gozdz ⁴	103	15, 29
Inskeep, ⁵ Johnson ⁶	103	1, 3, 6–14, 16–17, 20–21, 23, 25–28, 30–31
Inskeep, Johnson, Durando ⁷	103	19, 33
Nook ⁸	102	1, 2, 6, 8–16, 19–22, 26–30, 33
Nook, White	103	1, 2, 6–16, 19–22, 25–30, 33

¹ Chinese Pub. No. CN102005796A, Pub. Apr. 6, 2011 (Certified English Translation) (Ex. 1006, “Chen”).

² U.S. 7,279,640, Oct. 9, 2007 (Ex. 1007, “White”).

³ U.S. 2009/0218988, Pub. Sep. 3, 2009 (Ex. 1014, “Richardson”).

⁴ U.S. 7,348,101, Mar. 25, 2008 (Ex. 1011, “Gozdz”).

⁵ U.S. 2010/0301800, Pub. Dec. 2, 2010 (Ex. 1008, “Inskeep”).

⁶ U.S. 4,969,834, Nov. 13, 1990 (Ex. 1009, “Johnson”).

⁷ U.S. 2012/0068662, Pub. Mar. 22, 2012 (Ex. 1010, “Durando”).

⁸ PCT Publication No. WO2016/003471, Pub. Jan. 7, 2016 (Ex. 1012, “Nook”).

Nook, Miller ⁹	103	3, 23
Nook, Richardson	103	10
Nook, Shoji ¹⁰	103	17–18, 31–32

III. ANALYSIS

A. LEVEL OF SKILL IN THE ART

Petitioner contends a person of ordinary skill in the art “would have had at least a Bachelor’s of Science in electrical engineering or physics and at least two years of experience in circuit design for portable electronics.” Pet. 10 (citing Ex. 1003 ¶ 17). For the purpose of our decision, we adopt Petitioner’s description.

B. CLAIM CONSTRUCTION

Petitioner asserts “that no claim elements need a formal construction.” Pet. 10. We agree that we need not construe any claim limitations to determine whether to institute *inter partes* review. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“[W]e need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

C. DESCRIPTION OF PRIMARY ART REFERENCE

1. Chen (Ex. 1006)

Chen teaches “a mobile power supply.” Ex. 1006 ¶ 1. Chen’s Figure 1 is reproduced below.

⁹ U.S. 2016/0072329, Pub. Mar 10, 2016 (Ex. 1013, “Miller”).

¹⁰ U.S. 6,404,168, June 11, 2002 (Ex. 1015, “Shoji”).

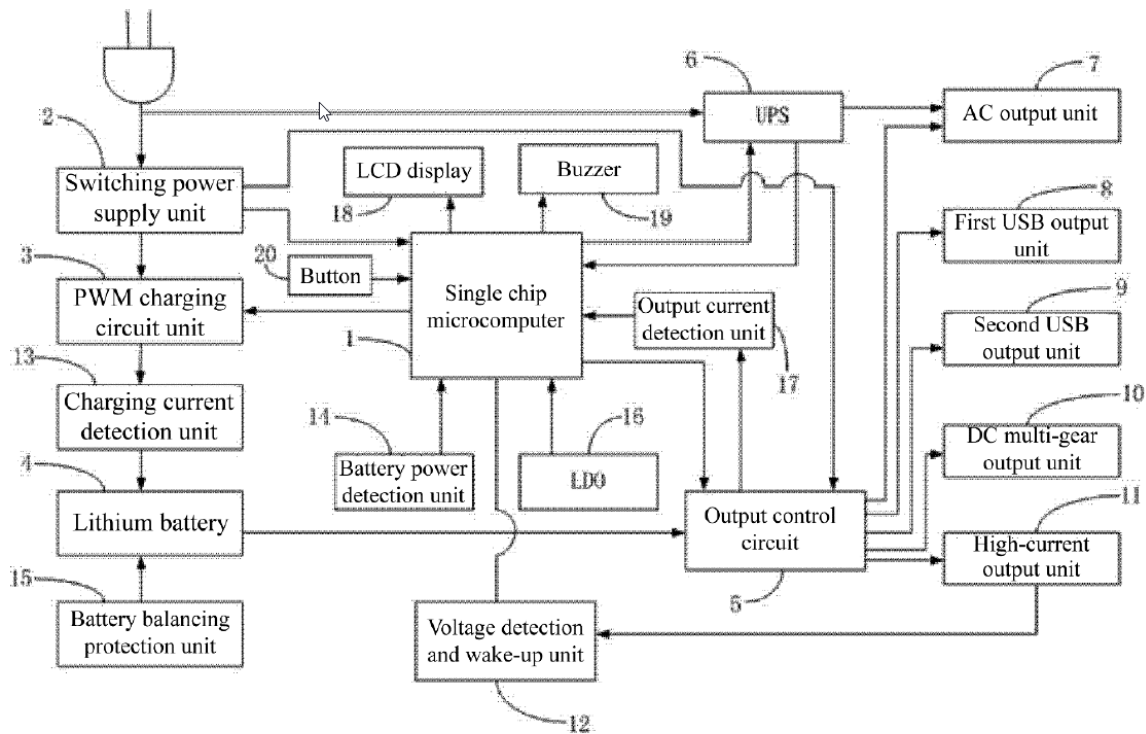


FIG. 1

Figure 1 “is a block diagram” of a mobile power supply. *Id.* ¶¶ 15, 22.

D. UNPATENTABILITY ANALYSIS

1. Anticipation of Claim 1 based on Chen

Petitioner contends Chen anticipates independent claim 1. Pet. 13–23. Specifically, Petitioner asserts Chen’s lithium battery teaches the claimed battery pack, Chen’s USB outputs 8, 9, and 10 teach claim 1’s first-current output port, and Chen’s high-current, car-battery output unit 11 teaches claim 1’s pair of output terminals capable of starting a vehicle. *Id.* at 13–20. Further, Petitioner corresponds Chen’s “electronics of ‘U3B and D12’” that “form ‘an output power limit control’” to the claimed first protection circuit (*Id.* at 20 (quoting Ex. 1006 ¶ 26)) and Chen’s relay K1 that “is automatically turned off to prevent long-term high-current output” to the claimed second protection circuit configured to prevent overcurrent (*Id.* at

21 (quoting Ex. 1006 ¶ 26)). We have reviewed Petitioner's arguments and the underlying evidence cited in support and are persuaded that, at this stage, Petitioner sufficiently demonstrates a reasonable likelihood of succeeding in its anticipation challenge to claim 1 based on Chen.

IV. CONCLUSION

For the foregoing reasons, we have determined that there is a reasonable likelihood that Petitioner would prevail with respect to at least one of the claims challenged in the Petition. We therefore institute trial as to all challenged claims on all grounds stated in the Petition.

V. ORDER

Accordingly, it is:

ORDERED that *inter partes* review of claims 1–3, 6–23, and 25–33 of the '506 patent is instituted on all grounds in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial; the trial will commence on the entry date of this decision.

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