

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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FANTASIA TRADING LLC D/B/A ANKERDIRECT,  
Petitioner,

v.

COGNIPOWER, LLC,  
Patent Owner.

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IPR2021-00068  
Patent RE47,031 E

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Before KEVIN F. TURNER, JEFFREY S. SMITH, and JOHN R. KENNY,  
*Administrative Patent Judges.*

SMITH, *Administrative Patent Judge.*

DECISION

Denying Institution of *Inter Partes* Review  
35 U.S.C. § 314, 37 C.F.R. § 42.4

## I. INTRODUCTION

Fantasia Trading LLC d/b/a Ankerdirect (“Petitioner”) filed a Petition (Paper 3, “Pet.”) requesting an *inter partes* review of claims 5, 6, 11, 12, 19–24, 26, 29, 39, 42, 50, 51 and 57 of U.S. Patent No. RE47,031 E (Ex. 1001, “the ’031 patent”). See 35 U.S.C. § 311. Cognipower, LLC (“Patent Owner”) filed a Preliminary Response. Paper 11 (“Prelim. Resp.”). Petitioner then filed an authorized Reply to address arguments directed to 35 U.S.C. § 325(d) (Paper 15) and Patent Owner filed an authorized Sur-reply (Paper 18).

In addition, Petitioner filed a Notice Ranking Petitions to address its four concurrently filed petitions (IPR2021–00067 through IPR2021-00070) challenging claims of the ’031 patent (Paper 1), to which Patent Owner filed a response (Paper 12).

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314 (2018); 37 C.F.R. § 42.4(a) (2020). As part of this analysis, we may consider whether Petitioner has filed more than one petition directed to the challenged patent. For the reasons discussed below, we determine that Petitioner has not justified additional Petitions directed to the ’031 patent. Accordingly, we do not institute an *inter partes* review.

### A. *Real Parties in Interest*

Petitioner identifies Anker and Power Integrations, Inc. as the real parties-in-interest. Pet. 60. Petitioner also states that Anker is a subsidiary of Anker Innovations Limited. *Id.* Patent Owner identifies itself as the real party-in-interest. Paper 8 (Mandatory Notice), 2.

*B. Related Proceedings*

Concurrent with the present Petition, Petitioner filed three additional petitions challenging claims of the '031 patent in the following proceedings: IPR2021-00067; IPR2021-00069; and IPR2021-00070.

Patent Owner identifies the following proceedings challenging RE47,713 E as related matters: *Fantasia Trading, LLC D/B/A AnkerDirect*, IPR2021-00071(PTAB); *Fantasia Trading, LLC D/B/A AnkerDirect*, IPR2021-00072 (PTAB); and *Fantasia Trading, LLC D/B/A AnkerDirect*, IPR2021-00073 (PTAB). Paper 8, 3. Patent Owner also identifies the following currently U.S. patent applications as related to the '031 patent: No. 16/547,850; No. 16/548/897; and No. 16/987,654. *Id.*

The parties also identify the following judicial matter as related to the proceeding: *CogniPower LLC v. Fantasia Trading, LLC D/B/A AnkerDirect and Anker Innovations Limited*, Case No. 1:19-cv-02293 (D. Del) (the “Co-pending Litigation”). Pet. 60; Paper 8, 2. Patent Owner further identifies the following judicial matter as related to the present proceeding: *Power Integrations, Inc. v. CogniPower LLC*, Case No. 1:20-cv-00015 (D. Del). Paper 8, 2.

*C. The '031 Patent*

The '031 patent, titled “Power Converter with Demand Pulse Isolation,” relates to a switched-mode power converters with regulation demand pulses sent across a galvanic isolation barrier. Ex. 1001, codes (54), (57). The '031 patent describes embodiments of power converters using either a blocking oscillator (*see, e.g., id.* at Figs. 1, 2)) a simple transformer (*id.* at Fig. 3), or a separate pulse transformer (*id.* at Fig. 4).

*D. Claims*

Petitioner challenges claims 5, 6, 36, 39, and 42 (which depend, directly or indirectly, from independent claim 1), claims 19–24, 26, and 29 (which depend, directly or indirectly from independent claim 18), and claims 11, 12, 50, 51, and 57 (which depend, directly or indirectly, from independent claim 10).

Claim 5 and its base claim 1 recite:

1. Apparatus configured to provide switched-mode power conversion, the apparatus comprising:

an input port configured to receive input power;

a switch configured to commutate the input power;

galvanic isolation circuitry configured to provide galvanic isolation between the input port and an output port, wherein the galvanic isolation circuitry comprises a transformer comprising (i) a primary winding arranged in circuit with the input port and the switch and (ii) a secondary winding arranged in circuit with a first rectifier and the output port, wherein the transformer is configured to transfer power from the input port to supply voltage or current to a load connected to the output port;

a demand pulse generator galvanically connected to the secondary winding and configured to generate demand pulses applied via the galvanic isolation circuitry to the switch to adjust a frequency of the commutation of the input power to supply a desired amount of voltage or current to the load; and

a capacitor and a second rectifier both galvanically connected to the second winding, wherein:

the second rectifier is different from the first rectifier and is poled to charge the capacitor during forward pulses of the apparatus; and

the demand pulse generator is powered by energy stored in the capacitor to generate the demand pulses.

Ex. 1001, 12:7–34.

5. The apparatus of claim 1, wherein the demand pulse generator comprises:
- an oscillator configured to generate oscillator pulses; and
- logic circuitry configured to selectively gate the oscillator pulses to generate the demand pulses applied to the galvanic isolation circuitry.

*Id.* at 12:48–54.

*E. Asserted Grounds of Unpatentability*

Petitioner asserts that claims 5, 6, 11, 12, 19–24, 26, 29, 39, 42, 50, 51 and 57 would have been unpatentable on the following grounds:

Claims Challenged	35 U.S.C. §	Reference(s)/Basis
5, 6, 19–24, 26, 29, 36, 39, 42, 50, 51, 57	103	Szepesi <sup>1</sup> , Mao <sup>2</sup> , Tisinger
6, 11, 12, 24, 29, 36, 39, 42, 51, 57	103	Matsumoto-392 <sup>3</sup> , Mao
11, 12	103	Matsumoto-043, Mao

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<sup>1</sup> U.S. Patent No. 5,498,995 A, issued March 12, 1996 (IPR2021-00067, Ex. 1007, “Szepesi”).

<sup>2</sup> U.S. Patent No. 6,466,461 B2, issued October 15, 2002 (Ex. 1006, “Mao”).

<sup>3</sup> U.S. Patent No. 7,773,392 B2, issued August 10, 2010 (Ex. 1010, “Matsumoto-392”).

## II. DISCRETIONARY DENIAL UNDER 35 U.S.C. § 314(a)

### A. *The Parties Positions*

Petitioner filed four petitions on the same day for *inter partes* review of the '031 patent. *See* IPR2021-00067 through IPR2021-00070. The challenged claims and asserted grounds for each petition are set forth below:

Petition	IPR	Claims Challenged	Grounds
1	IPR2021-00067	1, 2, 8, 10, 18, 25, 27, 30–33, 37, 38, 40, 43–46, 49, 52–55, 58–61	Zhu, <sup>4</sup> Mao
		1, 2, 8, 10, 18, 25, 30–33, 37, 38, 43–46, 49, 52–54, 58–61	Szepesi, Mao
2	IPR2021-00068	5, 6, 19–23, 26, 29, 36, 39, 42, 50, 51, 57	Szepesi, Mao
		6, 11, 12, 24, 29, 36, 39, 42, 51, 57	Matsumoto-392, Mao
		11, 12	Matsumoto-043, <sup>5</sup> Mao
3	IPR2021-00069	64	Matsumoto-392
			Matsumoto-043
			Mammano EDN, <sup>6</sup> UCC3961 <sup>7</sup>
4	IPR2021-00070	28, 34, 35, 41, 47, 48, 56, 62, 63	Zhu, Mao, Tsinger <sup>8</sup>
		28, 34, 35, 41, 47, 48,	Matsumoto-392,

<sup>4</sup> U.S. Patent Application Publication No. 2011/0096573 A1, published April 28, 2011 (Ex. 1005, “Zhu”).

<sup>5</sup> U.S. Patent Application Publication No. 2011/0305043 A1, published December 15, 2011 (IPR2021-00068, Ex. 1011, “Matsumoto-043”).

<sup>6</sup> Bob Mammano, “Isolated power conversion: making the case for secondary-side control,” EDN (June 7, 2001) (IPR2021-00069, Ex. 1012, “Mammano EDN”).

<sup>7</sup> Datasheet for UCC2961, UCC3961 Advanced Primary-Side Startup Controller (December 2000) (IPR2021-00069, Ex. 1013, “UCC3961”).

<sup>8</sup> U.S. Patent No. 5,418,410 A, issued May 23, 1995 (Ex. 1016, “Tsinger”).

Petition	IPR	Claims Challenged	Grounds
		56, 62, 63	Mao, Tsinger

Petitioner asserts that “[b]ecause each Petition challenges a distinct set of claims, the Board should institute all four Petitions.” Paper 1, 1.

Petitioner states that Patent Owner is currently asserting 53 of the 64 claims of the ’031 patent in the Co-pending Litigation and, that due to the large number of claims being asserted, Petitioner “needs four petitions to challenge the asserted claims due to word count constraints.” *Id.* at 2.<sup>9</sup>

Petitioner further asserts that the petitions are non-redundant because they each challenge distinct sets of claims and rely on different combinations of references that address the claim elements in material different ways. *Id.* at 3. In particular, Petitioner asserts that Petition 1 relies either on Zhu or on Szepesi as primary references, both of which were considered during reissue prosecution and found to disclose almost all the limitations of the claims, but combines them with a secondary reference (i.e., Mao) that expressly discloses the specific limitations that the PTO believed were not present in the prior art. *Id.* Petitioner asserts that Petition 3, which asserts claim 64 is unpatentable over 3 separate grounds—relying on either Matsumoto-392, Matsumoto-043, or Mammano-EDN as the primary reference, addresses the unique limitations of claim 63 that are not a part of the other independent claims. *Id.* Petitioner asserts that Petitions 2 and 4, which challenge dependent claims with unique limitations not addressed in the other Petitions, also relies on “primary references that were not before the PTO during the reissue.” *Id.* Petition 2 relies on either Szepesi, Matsumoto-392,

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<sup>9</sup> Petitioner does not cite to any evidence to support its assertion that Patent Owner is asserting 53 claims in the Co-pending Litigation.

or Matusmoto-043 as the primary reference and Petition 4 relies on either Zhu or Matsumoto-392 as the primary reference.

Petitioner further states that if the Board should exercise its discretion to deny any petitions, then the Board should institute at least Petitions 1 and 3. Paper 1, 1.

Patent Owner responds that Petitioner has split up the claims across multiple petitions to create the illusion that it did not have enough space to address each set of challenged claims in a single petition. Paper 12, 4. Patent Owner asserts that petitions 1, 2, and 4 present *four* different challenges to each of independent claims 1, 10, and 18—i.e., relying on four different primary references (1) Zhu, (2) Szepesi, (3) Matsumoto-392, or (4) Matusmoto-043, each in combination with and Mao without explaining why these redundant grounds are necessary or how they even materially differ from each other. *Id.* at 3–4. Patent Owner also states that had Petitioner divided the four primary references across the petitions, then there would have been sufficient space to address each set of challenged claims within each respective petition and then Petitioner would have had to justify the filing of multiple petitions with different grounds.<sup>10</sup> *Id.*

Patent Owner further asserts, contrary to Petitioner’s contentions, that the claim elements are not challenged in materially different ways. *Id.* at 5.

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<sup>10</sup> Although Patent Owner does not comment on Petition 3 (IPR2021-00069—now terminated), we note that Petition 3 asserts independent claim 64 is unpatentable over three separate grounds, two of which rely on the same primary prior art reference asserted in other petitions, i.e., Matsumoto-392 and Matsumoto-043. *See, e.g.*, IPR2021-00069, Paper 2 (Petition), 9–13 (asserting claim 64 is anticipated by Matsumoto-392), 14–20 (asserting claim 64 is anticipated by Matsumoto-043). Thus, Patent Owner’s arguments directed to Matsumoto-392 and Matsumoto-043 also apply to independent claim 64.



Patent Owner contends that each of the primary references (i.e., Zhu, Szepesi, Matsumoto-392, and Matsumoto-043) are relied on for disclosing the same claim elements of the same independent claims and that each reference is combined with Mao for the same reasons. *Id.* (citing Pet. 13, 33, 50). Patent Owner also asserts that, contrary to Petitioner’s assertion, only 42 claims were asserted in the Co-pending Litigation. *Id.* at 2.<sup>11</sup>

### *B. Analysis*

Under § 314(a), we have discretion to deny institution of an *inter partes* review. *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016) (“[T]he agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion.”); *SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1356 (2018) (“[Section] 314(a) invests the Director with discretion on the question whether to institute review . . . .” (emphasis omitted)); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”); *see also* 37 C.F.R. § 42.4(a) (“The Board institutes the trial on behalf of the Director.”). The Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 2019)<sup>12</sup> (“Trial Practice Guide”) addresses the issue we face here—whether to institute on more than one concurrently-filed petition addressing the same patent—and states:

Based on the Board’s prior experience, one petition should be sufficient to challenge the claims of a patent in most situations. Two or more petitions filed against the same patent at or about the same time . . . may place a substantial and unnecessary burden

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<sup>11</sup> Patent Owner does not cite to any evidence to support its assertion that it is only asserting 42, not 53, claims in the Co-pending Litigation.

<sup>12</sup> Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

on the Board and the patent owner and could raise fairness, timing, and efficiency concerns. *See* U.S.C. § 316(b). . . .

Trial Practice Guide, 59.

The Trial Practice Guide recognizes that

that there may be circumstances in which more than one petition may be necessary, including, for example, when the patent owner has asserted a large number of claims in litigation or when there is a dispute about priority date requiring arguments under multiple prior art references. In such cases two petitions by a petitioner may be needed, although this should be rare. Further, . . . the Board finds it unlikely that circumstances will arise where three or more petitions by a petitioner with respect to a particular patent will be appropriate.

*Id.*

The Trial Practice Guide further instructs Petitioners that file more than one petition challenging the same patent to file (1) a ranking of the petitions in the order in which petitioner wishes the Board to consider the merits, and (2) a succinct explanation of the differences between the petitions, why the issues addressed by the differences are material, and why the Board should exercise its discretion to institute additional petitions if it identifies one petition that satisfies petitioner's burden under § 314(a). *Id.* at 59–60.

Having considered the parties arguments, we are not persuaded that the present petition is necessary to challenge the claims of the '031 patent. Although Petitioner correctly argues that each of its four petitions challenge different claims, Petitioner has not shown that it was necessary to distribute its challenges across four petitions in order to present one ground of unpatentability for each challenged claim.

Notably, Petitioner does not assert that it could not have asserted at least one ground against challenged claim in a single petition. Rather, Petitioner asserts that it could not fit “*all of its grounds* against the asserted claims into a single petition.” Paper 1, 2. Each Petition, however, asserts multiple grounds for nearly every challenged claim with significant repetition of argument among the various petitions. For example, with respect to challenging claims on multiple grounds, the present Petition asserts that independent claims 1, 10, and 18 are unpatentable over both Zhu and Mao as well as over Matsumoto-392 and Mao, and that the challenged claims are unpatentable either over Zhu, Mao, and Tisinger or over Matsumoto-392, Mao, and Tisinger. Pet. 2, 15–56. Similarly, in Petition 1 (IPR2021-00067), Petitioner asserts independent claims 1, 10, and 18, as well as the dependent claims 2, 8, 25, 30–33, 37, 38, 43–46, 49, 52–54, and 58–61, are unpatentable over two grounds, namely either over Zhu and Mao or over Szepesi and Mao. IPR2021-00067, Paper 2 (Petition), 2. In Petition 2 (IPR2021-00068), Petitioner challenges claims 6, 24, 36, 39, 42, 51, and 57, which depend directly or indirectly on claims 1, 10, or 18 over both Szepesi and Mao as well as over Matsumoto-392 and Mao and challenges claims 11 and 12, which depend directly or indirectly on claim 10, over both Matsumoto-392 and Mao as well as over Matsumoto-043 and Mao. IPR2021-00068, Paper 3 (Petition), 2. In Petition 3 (IPR2021-00069), Petitioner challenges independent claim 64 on three grounds, namely (1) Matsumoto-392, (2) Matsumoto-043, as well as (3) Mammano EDN and UCC3961.<sup>13</sup> Thus, in addition to challenging nearly every dependent claim

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<sup>13</sup> As noted above in footnote 10, Patent Owner’s arguments do not address would be a fifth set of primary references (i.e., Mammano EDN), which is asserted as a third ground challenging claim 64 in Petition 3.

on at least two different grounds, Petitioner challenges independent claims 1, 10, and 18 on four different grounds (relying on either Zhu, Szepesi, Matsumoto-392, or Matsumoto-043 in combination with Mao) and independent claim 64 on three different grounds (relying on either Matsumoto-392, Matsumoto-043, an Mammano EDN and UCC3961).

Additionally, there is a great deal of repetition or overlap among the different petitions that could have been avoided had each petition been directed to grounds that rely on one primary prior art reference (i.e., Zhu, Szepesi, Matsumoto-392, or Matsumoto-042). For example, the arguments in the present petition as to the unpatentability of independent claims 1, 10, and 18 over Zhu and Mao appear to be the same arguments set forth in Petition 1 (IPR2021-00067). *Compare* Pet. 15–20, 24–29, 31–34 (asserting claims 1, 10, and 18 are unpatentable over Zhu and Mao) *with* IPR2021-00067, Paper 2, 13–20, 23–29, 31–34 (asserting same). The arguments in the present petition as to the unpatentability of independent claims 1, 10, and 18 over Matsumoto-392 and Mao appear to be the same arguments set forth in Petition 2 (IPR2021-00068). *Compare* Pet. 39–44, 47–52, 54–56 (asserting claims 1, 10, and 18 are unpatentable over Matsumoto-392 and Mao) *with* IPR2021-00068, Paper 3, 34–38, 40–44, 46–48 (asserting same).

Given Petitioner’s failure to assert that it could not fit a single ground against the asserted claims into a single petition, and given that the four petitions (1) present four alternative grounds to challenge independent claims 1, 10, and 18; (2) present three alternative grounds to challenge independent claim 64; (3) present multiple grounds against most of the dependent claims; and (4) contain significant overlap due to the repetition of arguments in multiple petitions, we determine Petitioner has not shown that

it was necessary to distribute its challenges across four petitions in order to present one ground of unpatentability for each challenged claim.

We also determine that Petitioner has not shown material differences among the asserted grounds. Petitioner does assert that Petition 1 relies on primary references that were considered during reissue (i.e., Zhu and Szepesi), Petition 3 relies on primary references that were not before the PTO during the reissue proceeding (i.e., Matsumoto-392, Matsumoto-042, and Matsumoto-EDN) to challenge independent claim 64 which has limitations not part of any other independent claim. Paper 1, 3. Petitioner further asserts that Petition 2 and Petition 4 (the present Petition) addresses dependent claims that include “unique limitations not addressed in the other petitions and also rely on primary references that were not before the PTO during reissue.” *Id.*

These assertions, however, are not an explanation as to why it is necessary to assert multiple petitions that rely on multiple grounds when a single petition could have been presented to challenge the claims. For example, Petitioner provides no argument that different dependent claims require assertion of different primary references. Nor does Petitioner argue that the Director’s discretion under 35 U.S.C. § 325(d)—to deny a petition because the same or substantially the same art was previously presented to the Office—would require arguments under multiple prior art references.

On this record, Petitioner has not demonstrated a need for multiple petitions to challenge the patentability of claims of the ’031 patent. Accordingly, we exercise our discretion under 35 U.S.C. § 314 and *deny* the current Petition.

### III. CONCLUSION

For the reasons discussed above, we deny institution of *inter partes* review.

### IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that no *inter partes* review is instituted.

IPR2021-00068  
Patent RE47,031 E

FOR PETITIONER:

Jennifer Huang  
Kim Leung  
FISH & RICHARDSON, P.C.  
jjh@fr.com  
leung@fr.com

FOR PATENT OWNER:

Jonathan Lindsay  
CROWELL & MORRELL LLP  
jlindsay@crowell.com

Hong Zhong  
IRELL AND MANELLA LLP  
hzhong@irell.com