

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

VICOR CORPORATION,

Petitioner,

v.

DELTA ELECTRONICS, INC.,

Patent Owner.

PTAB Case No. IPR2024-00715

U.S. Patent No. 10,877,534

**PATENT OWNER'S PRELIMINARY SUR-REPLY IN RESPONSE TO
PETITIONER'S PRELIMINARY REPLY**

Patent Owner submits sur-reply in response to Petitioner's reply (Paper 11).

I. CLAIMS 13-19 ARE SUPPORTED: Petitioner contends that Fig. 26 does not show a “bearing plate,” “at least one pin electrically connected to the bearing plate,” or a pin covering “at least part of two lateral sides” of “the bearing plate” (claim 13) or “the cuboid body” (claim 17). (Paper 11 at 1.) Petitioner is incorrect. After control unit 130 is “encapsulated with the packaging,” its internal components (e.g., bearing plate) remains within control unit 130 regardless of whether the unit is being stacked. Fig.

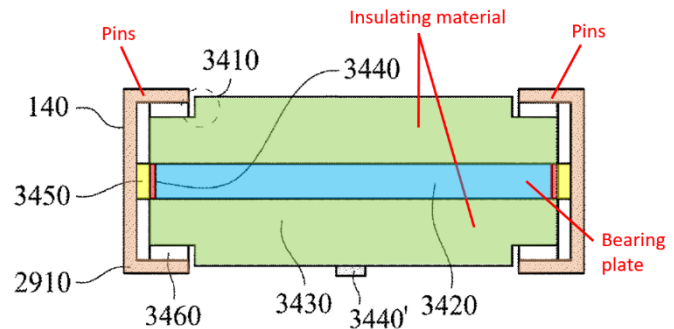


Fig. 25

25 describes internal components of control unit 130 before being stacked and Fig. 26 proceeds to show a module formed “[a]fter stacking each unit.” (EX2005, 354-356; EX2006, 146-153; ’534 Patent, 19:26-20:17.) Control units in Figs. 25 and 26 are both referred as “control unit 130” and contain a bearing plate. Indeed, contrary to Petitioner’s contentions, “[t]he unit illustrated in FIG. 25 can be any of the above-mentioned power unit and/or *control unit*” and that “*any one of the control unit* and the power unit *comprises a bearing plate 3420.*” (EX2005, 354; EX2006, 146; ’534 Patent, 19:34-40.) Fig. 25 and the priority documents support that *pins 140*

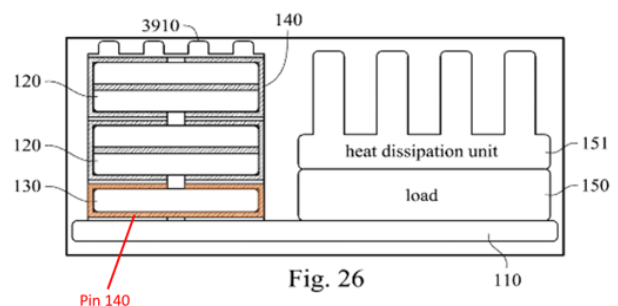


Fig. 26

(orange) are electrically connected to bearing plate 3420 through electrically conductive pads 3440 (red) and soldering material 3450 (yellow). (EX2005, 43, 354-355, 375; EX2006, 146-147, Fig. 34; '534 Patent, 19:26-20:10.)

Petitioner also contends that for power unit 120 to function, pins 140 on either side of power unit 120 “would have to remain electrically isolated,” and that the single pin 140 of control unit 130 “would short out the alleged two pins of the stacked power unit 120” to “create a short circuit.” Reply, 2-3. Petitioner again mischaracterizes the '534 Patent which discloses that, when

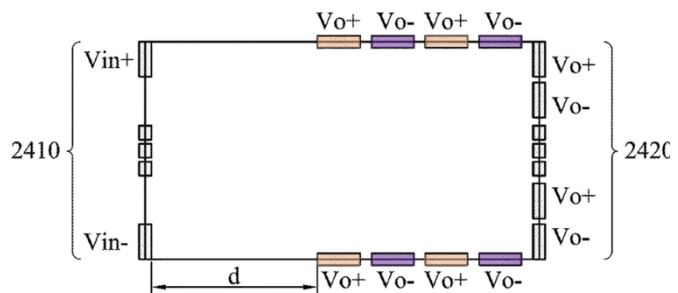


Fig. 22

multiple pads are required, pins 140 on opposite sides of power unit 120 can be electrically connected to the *same* voltage. For example, pads on opposite sides of the power unit in Fig. 22 are being connected to the *same* V_{0+} voltage level (orange-shaded pads) or the *same* V_{0-} voltage level (purple-shaded pads). Connecting opposing pads in the way illustrated in Figs. 22 and 26 does *not* create a short circuit but rather ensures “induction resistance of the pads is as low as possible” because the opposing pads already have the same voltage level. (EX2005, 353; EX2006, 142; '534 Patent, 19:11-14.) In sum, claims 13-19 are fully disclosed in the priority documents and are entitled to the September 2, 2014 priority date.

II. PETITIONS OVERLAP: The Reply does not substantively address this and

arguments from other proceedings cannot be incorporated. 37 C.F.R. § 42.6(a)(3).

The '534 Patent includes four independent claims. IPR2024-00706 (the “706 Petition”) challenges independent claims 1 and 10 and IPR2024-00715 (the “715 Petition”) challenges independent claims 13 and 17. Petitioner divided the independent claims across two Petitions to create the illusion that it did not have enough space. However, the independent claims share substantially overlapping claim scope and Petitioner presented substantially the same art in both.

Claims 1, 10, 13, and 17 all identically recite: “[a] power supply apparatus,” “a bearing plate,” “insulation material formed on two opposite surfaces of the bearing plate,” and one or more pins “electrically connected to the bearing plate.” (*Compare* 706 Petition, Paper 8, 8-9 *with* 715 Petition, Paper 8, 8-9.) Claims 13 and 17 further requires pins covering “two lateral sides” of either “the bearing plate” (claim 13) or “the cuboid body” (claim 17). (Paper 11 at 1.) Despite Petitioner’s contentions that fewer references allegedly disclose the “two lateral sides” limitation, the 715 Petition relies on the same permutations of four references as the 706 Petition. (*Compare* 706 Petition, Paper 3, 1-2 *with* 715 Petition Paper 3, 1-2.) Petitioner’s justification is a priority dispute, but only this represents a tertiary ground. Grounds 5 and 6 of the 715 Petition rely solely on Vinciarelli-664 and hinge on a weak priority argument. It is Petitioner’s responsibility to follow Board guidance and regulations and streamline its briefing accordingly.

Dated: August 27, 2024

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I certify that I caused to be served a true and correct copy of the foregoing: PATENT OWNER'S PRELIMINARY SUR-REPLY IN RESPONSE TO PETITIONER'S PRELIMINARY REPLY by email to the electronic service addresses for Petitioner on the date indicated below:

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Dated: August 27, 2024

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