

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

VICOR CORPORATION,
Petitioner,

v.

DELTA ELECTRONICS, Inc.,
Patent Owner.

Case IPR2024-00715
Patent 10,877,534

**PETITIONER'S PRELIMINARY REPLY TO PATENT OWNER'S
PRELIMINARY RESPONSE**

TABLE OF CONTENTS

I. Claims 13-19 Lack Support in the Priority Documents.....	1
II. The Claims Challenged in IPR2024-000706 Are Substantially Different Than the Claims Challenged Here	3

PETITIONER’S UPDATED EXHIBIT LIST

VICOR-1001	U.S. Patent No. 10,877,534 to Jian-Hong Zeng (“the ’534 patent”)
VICOR-1002	Excerpts from the Prosecution History of the ’534 patent (“the Prosecution History”)
VICOR-1003	Declaration and Curriculum Vitae of Dr. R. Jacob Baker, Ph.D., P.E.
VICOR-1004	Complaint, <i>Delta Electronics, Inc. v. Vicor Corporation</i> 1-23-cv-01246, D. Del., filed November 1, 2023
VICOR-1005	Amended Complaint, <i>Delta Electronics, Inc. v. Vicor Corporation</i> 1-23-cv-01246, D. Del., filed January 26, 2024, including Exhibit 4 (infringement claim chart)
VICOR-1006	United States Patent Application Publication No. 2014/0355218 to Vinciarelli et al. (“Vinciarelli-218”)
VICOR-1007	United States Patent Application Publication No. 2009/0175014 to Zeng et al. (“Zeng-014”)
VICOR-1008	U.S. Patent No. 10,285,270 to Joseph Fjelstad (“Fjelstad”)
VICOR-1009	United States Patent Application Publication No. 2015/0116891 to Park et al. (“Park”)
VICOR-1010	United States Patent No. 10,264,664 to Vinciarelli et al. (“Vinciarelli-664”)
VICOR-1011	Excerpts from the Prosecution History of U.S. Patent Application No. 14/840,063 (“063 Application and PH”)
VICOR-1012	United States Patent Application Publication No. US2005/0098874 to Jun et al. (“Jun”)
VICOR-1013	U.S. Patent No. 6,621,011 to Daidai et al. (“Daidai”)
VICOR-1014	U.S. Patent. No. 7,361,844 to Vinciarelli et al. (“Vinciarelli-844”)

VICOR-1015	U.S. Patent No. 6,934,166 to Vinciarelli et al. ("Vinciarelli-166")
VICOR-1016	"Design Guide & Applications Manual for VI-200 and VI-J00 Family DC-DC Converters and Configurable Power Supplies," Rev. 3.5, Vicor Corporation (2013) ("Design Guide")
VICOR-1017	Transcript of Board Call held August 6, 2024

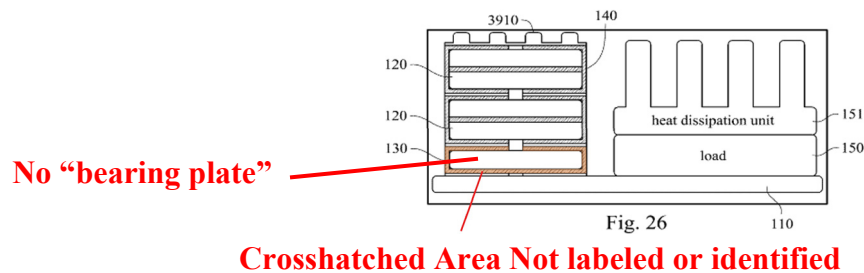
I. Claims 13-19 Lack Support in the Priority Documents

Grounds 5 and 6 of the Petition rely on Vinciarelli-664, which has a filing date of June 4, 2015. Vinciarelli-664 is prior art because claims 13-19 are not supported by the priority documents, and are thus entitled to a priority date no earlier than the filing date of the '534 Patent, which is April 12, 2018.

Claims 13-19 require “at least one pin electrically connected to the bearing plate” and that covers “at least part of two lateral sides” of the bearing plate (claim 13) or the cuboid body (claim 17). The priority documents do not show such a structure. Rather, at most, they depict and describe a pin electrically connected to the bearing plate and that covers one side of a bearing plate or cuboid body.

In its POPR, Patent Owner asserts that Chinese patent application CN972 supports claims 13-19. It does not. Patent Owner asserts that “at least the contents of the drawings disclosed in CN972 and the '063 Application both provide adequate written description support for claims 13-19 of the '534 Patent.” POPR, 50. Patent Owner then identifies a figure that it asserts provides the necessary disclosure: “The Petition turns a blind eye to the neighboring figure - Fig. 26 - of the '534 Patent (for example).” POPR, 51. Patent Owner alleges that Figure 26 discloses that “pins 140 of the bottom control unit 130 continuously cover the top and bottom surfaces as well as two opposing lateral surfaces of control unit 130.” POPR, 52. But this statement is insufficient because the pin must be electrically connected to a “bearing plate.” The figure has no bearing plate (as Patent Owner

recognizes). In addition, the figure does not support Patent Owner's statement. It does not disclose a "pin 140" associated with control unit "130." The crosshatched portion of control unit "130" is not labeled in the figure or described as a pin in the written description. Patent Owner has no basis to conclude that the crosshatched portion represents a "pin".



Moreover, Patent Owner's assertion that the "pins" "*continuously* cover the top and bottom surfaces as well as two opposing lateral surfaces of control unit 130," POPR, 52 (emphasis in original), cannot be correct. Under Patent Owner's interpretation of Fig. 26, the power unit 120 would have two pins each extending toward the middle of its bottom surface. To function, these pins would have to remain electrically isolated (as shown in Ex. 2005, 375 (Figure 25), 293 (Figure 34)). Yet, under Patent Owner's interpretation, the alleged single "pin" (highlighted in orange above) of control unit 130 would short out the alleged two pins of the stacked power unit 120. Patent Owner also states that Figures 37, 38, and 40 likewise provide support (POPR, 53), but they show nothing more than Figure 26.

Patent Owner suggests that it would have been “desirable” to provide a continuous pin on control unit 130 based on the foreign priority document’s discussion of “heat exchange capability.” POPR, 55. However, for priority, it is not sufficient to render the claim obvious (or “desirable”), the claim must be disclosed. *Lockwood v. Am. Airlines*, 107 F.3d 1565, 1571-2 (Fed. Cir. 1997).

Patent Owner points to embodiments in which “control unit 130” contains “bearing plate 3420.” POPR, 56. However in those embodiments, the unit looks like that shown in Fig. 25, and the two pins on either side are electrically isolated and distinct and are shown on a single lateral side each. Ex. 2005, 375. Even assuming Figure 26 disclosed a “pin” on two lateral sides, Patent Owner cannot mix and match embodiments, particularly when doing so would create a short circuit. In sum, claims 13-19 are not disclosed in the priority documents.

II. The Claims Challenged in IPR2024-000706 Are Substantially Different Than the Claims Challenged Here

The claims here require a pin covering two lateral sides of a bearing plate. That limitation is absent from the claims challenged in IPR2024-706. The application of the prior art against each set of claims is therefore different. Moreover, intervening anticipatory art (Vinciarelli-664) is available against these claims, but is not available against the claims challenged in IPR2024-706.

Accordingly, the claims were sufficiently different, and the analyses in the two petitions sufficiently different, that two petitions were necessary.

Respectfully submitted,

Dated: August 20, 2024

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§ 42.6(e)(1) and 42.6(e)(4)(iii), the undersigned certifies that on August 20, 2024, a complete and entire copy of this Petitioner's Reply to Patent Owner's Response and accompanying exhibits were provided by email to the Patent Owner by serving the email correspondence addresses of record as follows:

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