

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DELL TECHNOLOGIES INC. AND DELL INC.,
Petitioners,

v.

CLOUD BYTE LLC
Patent Owner.

Case No. IPR2025-01287
U.S. Patent No. 9,629,265

PATENT OWNER'S PRELIMINARY RESPONSE

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EXHIBITS

EX2001	German Pat. No. 102015101304B3
EX2002	German Pat. No. 112011105205
EX2003	Dkt. 94 (Second Amended Scheduling Order)
EX2004	Dkt. 119 (Order Setting Markman Hearing)
EX2005	Docket Navigator Statistics
EX2006	U.S. Court's median time-to-trial statistics for the Eastern District of Texas
EX2007	Carl Invalidity Claim Chart for the '265 Patent (D1)
EX2008	Okamoto Invalidity Claim Chart for the '265 Patent (D3)
EX2009	Suzuki Invalidity Claim Chart for the '265 Patent (D7)
EX2010	Declaration of Dr. Paul Min in support of Patent Owner's Preliminary Response

I. INTRODUCTION

For the reasons explained in Patent Owner's Request for Discretionary Denial, the Board should exercise its discretion to deny these petitions given the significant settled expectations and the impending trial in the parallel district court litigation.

However, there are also significant flaws with the merits of the Petition. The Petition fails to establish that any of the challenged claims are unpatentable because: (1) the Petition fails to show that Carl and Okamoto discloses a plurality of memory devices adjacent to a CPU, (2) the Petition fails to show that Carl and Okamoto disclose power sources downstream of cooling air.

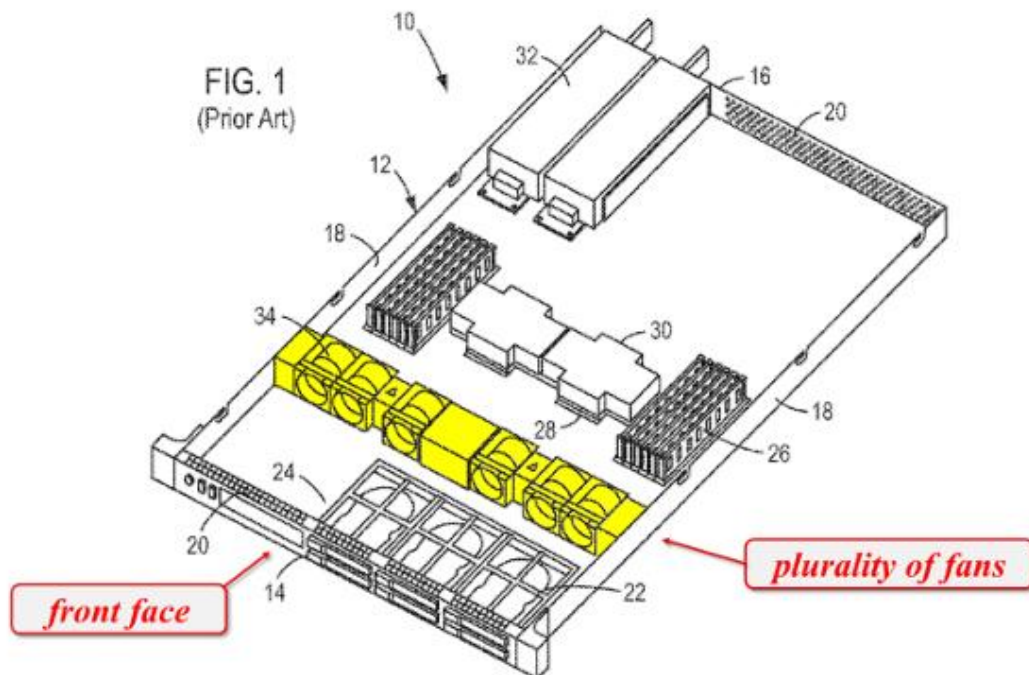
II. GROUND 1 AND 2: CARL COMBINED WITH HUGHES OR SUZUKI DO NOT RENDER OBVIOUS ANY CHALLENGED CLAIM¹

A. The Petition Fails to Establish that Carl Discloses a "Plurality of Memory Devices Adjacent to the CPU" (All Claims)

¹ The Petition challenges the claims using two groups of grounds: one based on Carl (Grounds 1-4) and one based on Okamoto (Grounds 5-8). To the extent the Board agrees with Patent Owner for one group of grounds but not the other, the Petition should nevertheless be denied as it would be an inefficient use of Board resources to institute a proceeding where half of the grounds are unlikely to succeed at trial. *Zhuhai CosMX Battery Co., Ltd. v. Ningde Ampere Tech. Ltd.*, IPR2025-00405, Paper 24 at 3 (Oct. 15, 2025) (Director Review).

Each of the challenged claims recite a “plurality of memory devices adjacent to the CPU.” Carl does not disclose this limitation because it only discloses at most one memory device adjacent to a CPU. EX2010, ¶36.

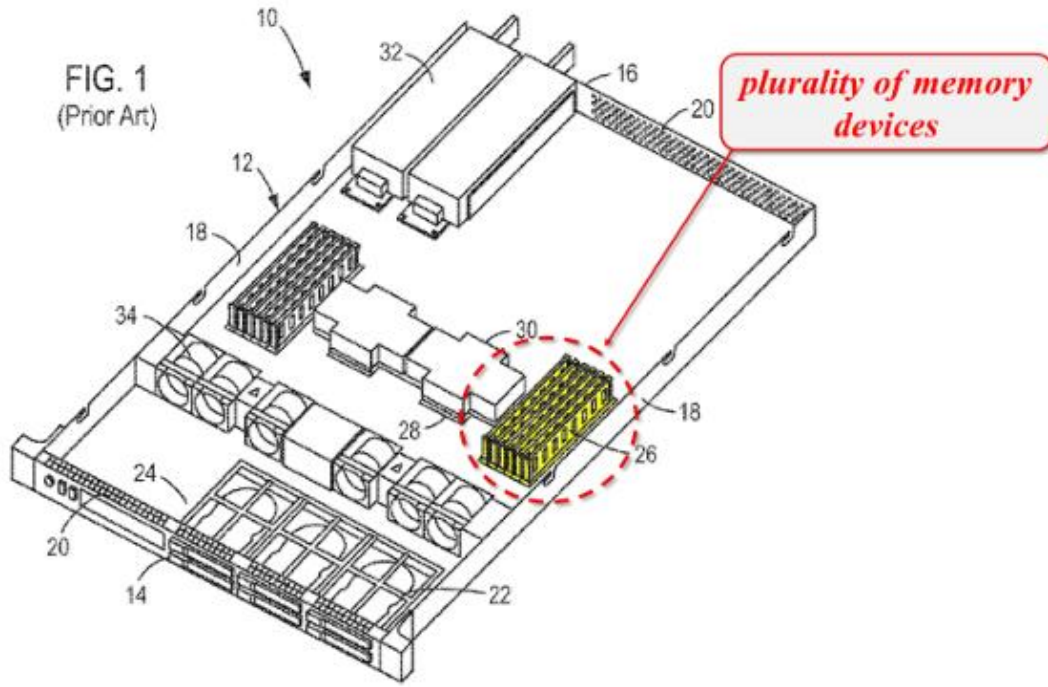
Petitioner relies on Carl's short description of a prior art rack server as depicted in Figure 1 below (annotated by Petitioner). Pet. 33-35.



Carl discloses “two processors 28” and “a plurality of memory modules 26.” However, as clearly shown in the above figure, each of the memory modules are adjacent to a different processor. EX2010, ¶¶37-38. Thus, Carl does not disclose multiple memory devices adjacent to one of the processors.

Petitioner provides two alternative arguments, both of which fail. EX2010, ¶39. First, as shown in Petitioner's annotated Figure 1, Petitioner argues that each of Carl's memory modules is “composed of multiple

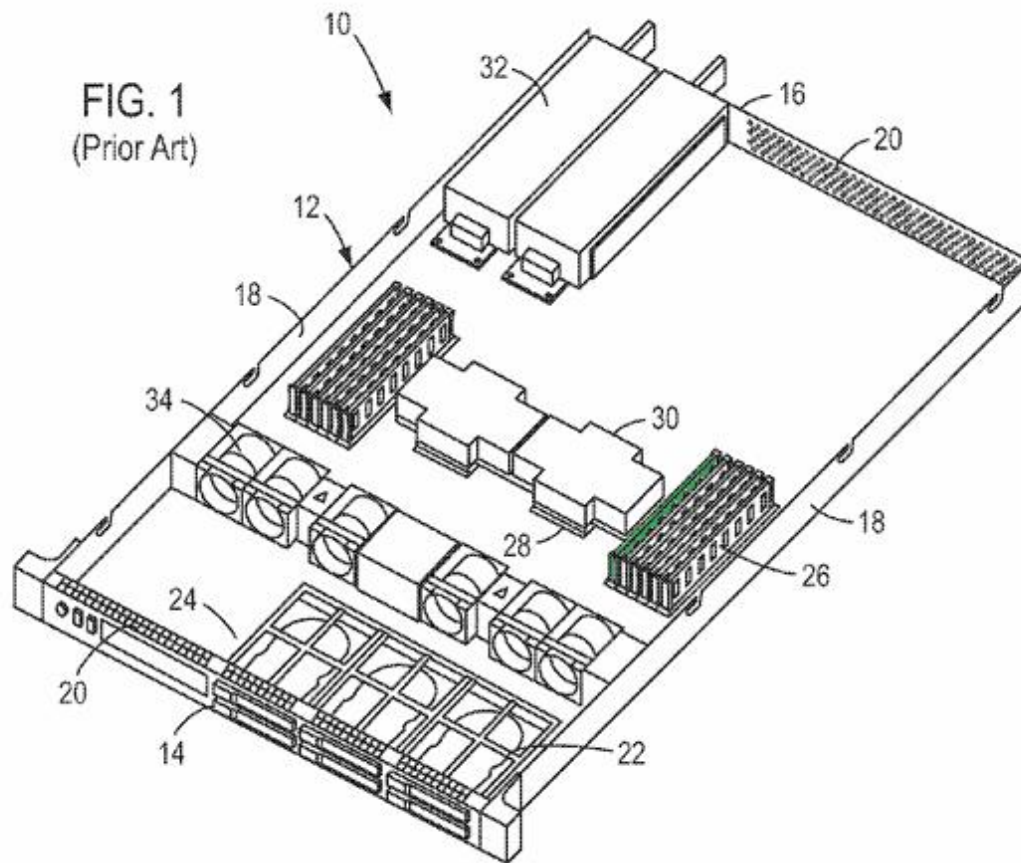
individual memory modules (i.e., dual in line memory modules or DIMMs),” and thus each is a plurality of memory devices. Pet. 33.



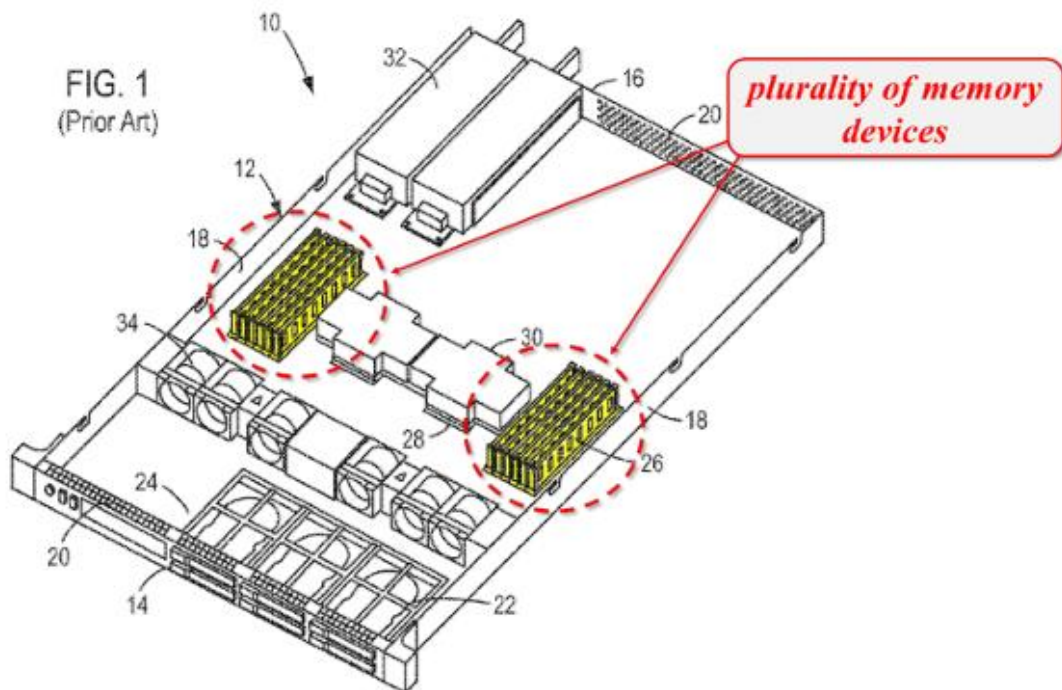
But Carl never teaches that each of these components constitute multiple memory modules. EX2010, ¶40. Petitioner's only evidence is its expert's testimony, which is not sufficient to supply a missing limitation when the prior art fails to disclose it. 37 C.F.R. § 42.104(b)(4); July 31, 2025 Director Memo (“[E]nforcement of Rule 104(b)(4) means that ... expert testimony ... may not be used to supply a missing claim limitation.”).

Moreover, even assuming the depicted memory device constitutes multiple DIMMs, there is still only one DIMM (highlighted in green) that is

“adjacent to the CPU.” EX2010, ¶40. The remaining DIMMs are not adjacent to the CPU, as shown in the below annotated figure.



Alternatively, Petitioner argues that Carl's two memory modules are a plurality of memory devices “located *adjacent* to either CPU 28.” Pet. 34. This theory is shown in the below annotated figure from Petitioner:



However, these plurality of memory devices are not both “adjacent to the CPU.” Each memory device is adjacent to a different CPU. EX2010, ¶¶41-42.

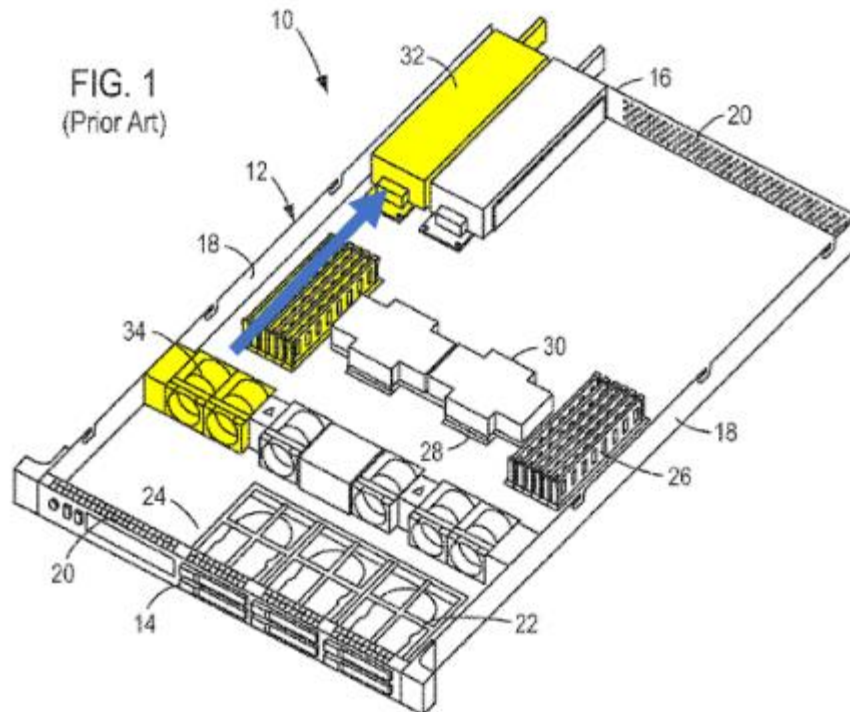
Contemplating this argument, Petitioner argues that “it would be an obvious design variation for Carl’s server to have one CPU instead of two depicted in Figure 1, with memory modules 26 on each side, as a POSITA would have known.” Pet. 35. However, Petitioner provides no motivation for why a POSITA would modify Carl to **remove** a CPU, which would result in weaker performance. Moreover, merely removing a CPU would not result in both memory devices being **adjacent** to the remaining CPU—one of them would be a significant distance from the CPU. EX2010, ¶43. Petitioner

provides no motivation why a POSITA would move one of the memory devices to be adjacent to the remaining CPU. Indeed, Carl teaches that the position of components and fans are in order to “tailor the airflow distribution over the components so that each component will receive the airflow required to cool the component sufficiently.” EX1005, 1:51-54. In Figure 1, the “number of fans [are] distributed across the enclosure to provide a uniform airflow over all of the components.” *Id.*, 1:54-57. Accordingly, the specific placement of components is important to properly distribute airflow. EX2010, ¶43.

B. The Petition Fails to Establish that Carl in view of Hughes or Suzuki Discloses or Renders Obvious “Power Source Units ... Downstream of the Cooling Air From the Plurality of Memory Devices” (All Claims)

Each claim requires that the power source units be positioned “downstream of the cooling air from the plurality of memory devices such that the cooling air passing through one of the memory devices passes into one of the power source units.” However, Petitioner has failed to show that Carl discloses this limitation. EX2010, ¶44. As for Hughes or Suzuki, Petitioner does not rely on those references for this limitation.

Petitioner claims that in Carl's Figure 1, the power supplies are located “so that the *cooling air passing through one of the memory devices passes into one of the power source units* as indicated by the arrow below.” Pet. 38-39.



However, Carl does not expressly disclose that air travels in the direction of the arrow, and Petitioner only relies on the conclusory testimony of its expert. EX2010, ¶¶45-46. Again, such testimony is insufficient to supply a missing claim limitation. In addition, the Petition does not assert and does not explain how the power sources are “downstream of the *cooling air from the plurality of memory devices*.” Petitioner does not explain where Carl expressly teaches that the memory devices emit any *cooling* air or explain why such disclosure would be inherent for the purposes of establishing invalidity. Thus, for these reasons, Petitioner has failed to show that Carl discloses this limitation.

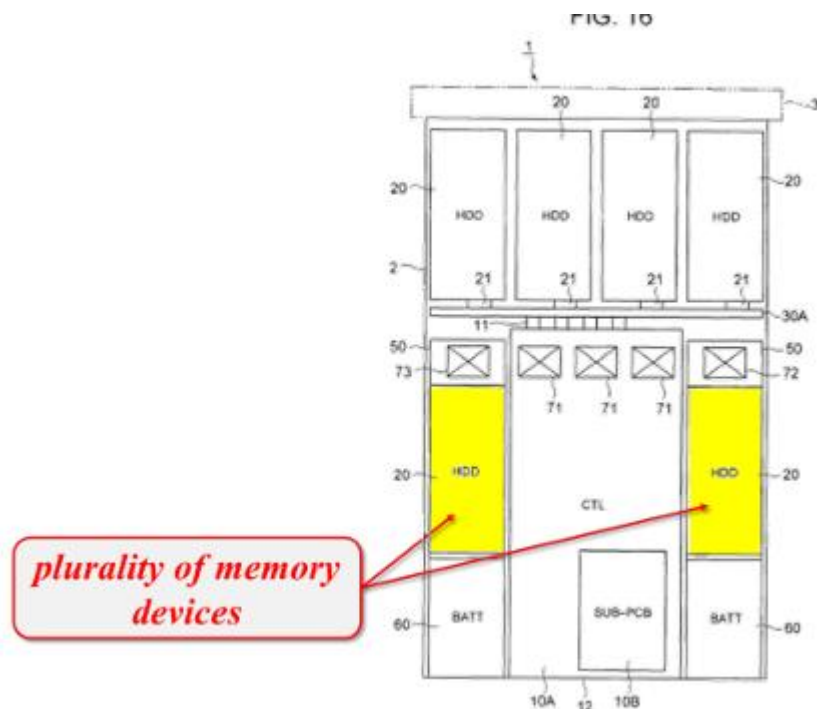
III. GROUND 3 AND 4

Grounds 3 and 4 of the Petition combine Carl with other references to challenge dependent claims, and therefore fail for the same reasons as Ground 1. EX2010, ¶47.

IV. GROUND 5

A. The Petition Fails to Establish that Okamoto Discloses a “Plurality of Memory Devices Adjacent to the CPU” (All Claims)

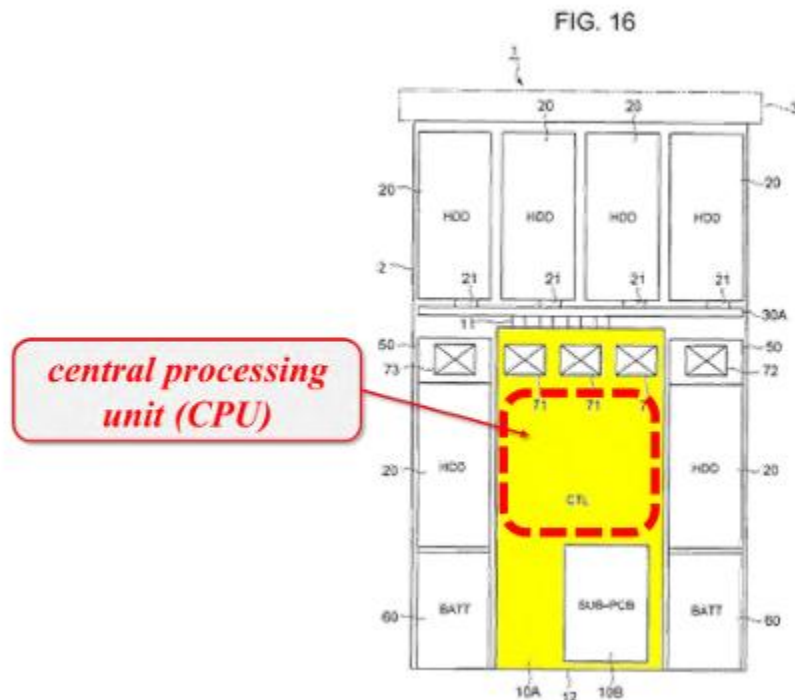
The Petition fails to establish that Okamoto discloses a “plurality of memory devices adjacent to the CPU.” EX2010, ¶48. The Petition relies on Figure 16, wherein two HDDs are adjacent to a *control board 10A*. Pet. 72-73.



Patent Owner's Preliminary Response

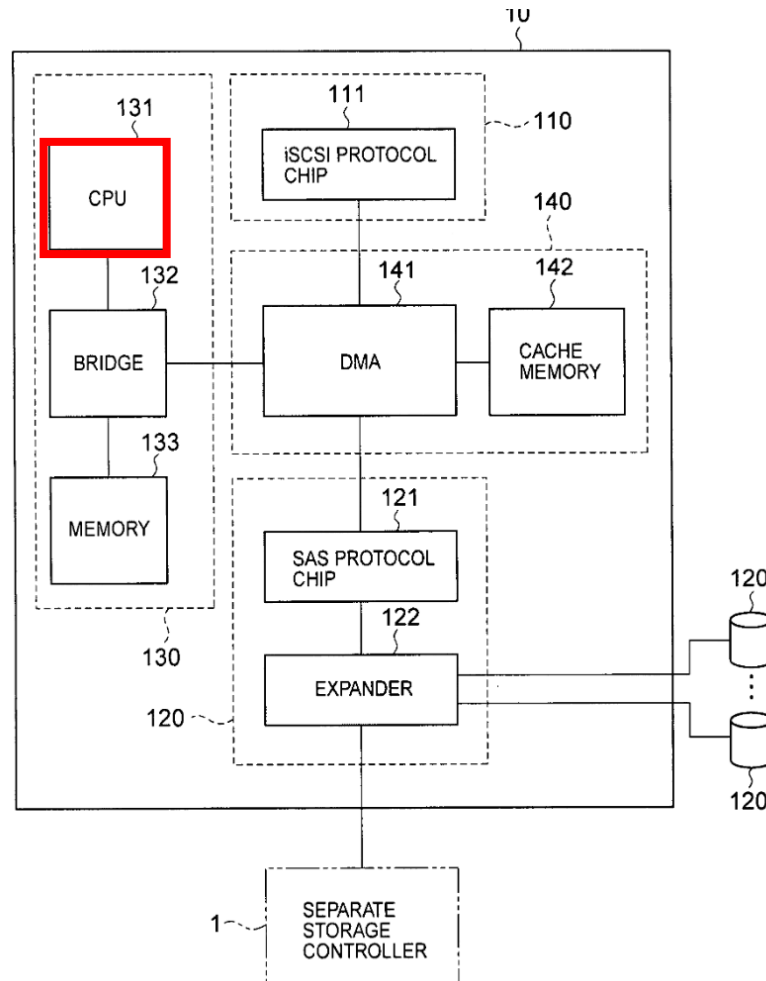
While Okamoto discloses that the control board contains a CPU, Okamoto does not disclose the placement of that CPU on the control board. Accordingly, there is no teaching in Okamoto that the memory devices are *adjacent* to the CPU. EX2010, ¶49.

Petitioner argues a “POSITA would understand that the *CPU* is located on the portion of main board 10A between fans 71 and the sub-board 10B, as shown below.” Pet. 74 (citing EX1003, ¶289). But Petitioner provides no evidence of this beyond its expert’s say-so. Again, expert testimony alone is insufficient to provide a missing limitation.



Indeed, it is clear from other disclosures in Okamoto that the CPU is neither that large nor positioned as Petitioner indicated. EX2010, ¶51. For

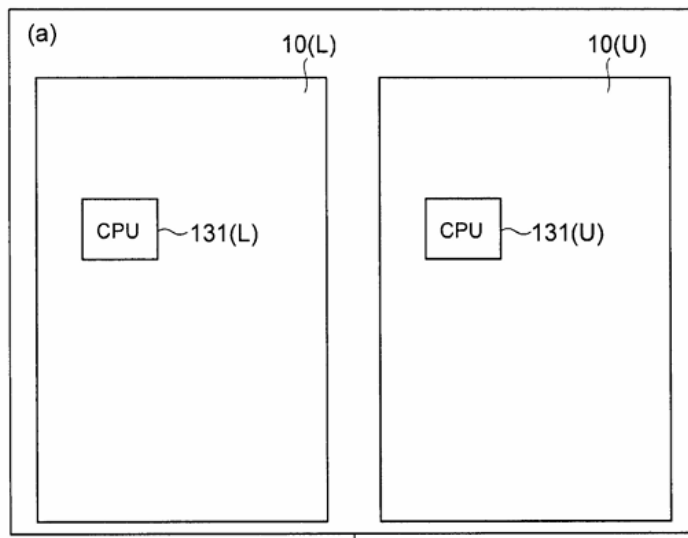
example, in Figure 6, which is a “block diagram of the control board,” the CPU is both small and located in the upper left of the control board.



At best, this CPU would only be adjacent to one of the HDDs. EX2010, ¶51.

Similarly, Figure 20A “is a schematic plan view of the control boards 10 focusing on the *location of the microprocessors 131.*” EX1010, 16:49-50. Again, the CPU for each control board is small in size and not positioned in such a way that both HDDs would be adjacent to it. EX2010, ¶52.

FIG. 20



Thus, Okamoto does not disclose a plurality of memory devices adjacent to a CPU.

B. The Petition Fails to Establish that Okamoto Discloses a “Plurality of Power Sources ... Positioned Further Downstream of the Cooling Air From the Plurality of Memory Devices” (All Claims)

Each claim requires that the power source units be positioned “downstream of the cooling air from the plurality of memory devices such that the cooling air passing through one of the memory devices passes into one of the power source units.” However, Petitioner has failed to establish that Okamoto discloses this limitation. EX2010, ¶53.

Petitioner’s analysis for the plurality of power sources “positioned downstream of the cooling air from the plurality of memory devices” simply refers to its analysis for “limitations 1d and 1e.” Pet. 78-79. However, while

Petitioner's analysis for those limitations discuss the placement of the power sources relative to memory devices, the analysis does not discuss how Okamoto teaches "cooling air **from**" the memory devices. Pet. 72-78. Indeed, the analysis for those limitations does not discuss "cooling air" or air flow at all. EX2010, ¶54.

Similarly, for the limitation of "cooling air passing through one of the memory devices passes into one of the power source units," Petitioner simply refers to its discussion for limitation 1b and its annotated Figure 16. Pet. 79. However, Petitioner's analysis for limitation 1b merely discusses the direction of the air flow, and does not discuss the air flow from the alleged memory device to the alleged power source unit. EX2010, ¶55. Specifically, Petitioner does not explain how Okamoto discloses air flowing "into" one of the power source units. Pet. 67-70.

Indeed, Petitioner does not point to any disclosure in Okamoto with respect to Figure 16 that discusses how the air flows at all, including whether there is "cooling air" or whether air passes through the HDDs into the power sources, as the claims recite. Pet. 67-70; EX1010, 14:63-15:55.

For these reasons, Petitioner has failed to show that Okamoto discloses this limitation.

V. GROUND 6-8

Patent Owner's Preliminary Response

Grounds 6 through 8 of the Petition combine Okamoto with other references to challenge dependent claims, and therefore fail for the same reasons as Ground 1. EX2010, ¶56.

VI. CONCLUSION

For the foregoing reasons, *inter partes* review should not be instituted.

Date: October 21, 2025

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CERTIFICATION UNDER 37 C.F.R. § 42.24

Under the provisions of 37 C.F.R. § 42.24, the undersigned hereby certifies that the word count for the foregoing document totals 1,688 words, which is less than the 14,000 words allowed under 37 C.F.R. § 42.24(a)(i).

Date: October 21, 2025

/s/ James M. Glass

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CERTIFICATE OF SERVICE (37 C.F.R. §§ 42.6(E), 42.105(A))

The undersigned hereby certifies that the foregoing document was served in its entirety on October 21, 2025 upon the following parties via

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