UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

RESONANT SYSTEMS, INC.,
Patent Owners.

Case IPR2024-00808
U.S. Patent No. 9,941,830

PETITIONER'S PRELIMINARY REPLY

TABLE OF CONTENTS

I. THE PETITION ADDRESSES THE "CONTROL COMPONENT" ACCORDING TO THE DISTRICT COURT'S CONSTRUCTION.....1

II. PATENT OWNER MISCHARACTERIZES THE PETITION'S ANALYSIS OF THE "CONTROL COMPONENT".....3

Citing the claim construction order (EX-2002) in parallel litigation, Patent Owner (PO) argues that the Petition fails to show a particular structural element ("step 762" of FIG. 7C) of the term "control component" according to the means-plus-function (MPF) interpretation. POPR, 7-19. This argument ignores the straightforward analysis of the Petition that fully addresses the district court's MPF interpretation of this element (i.e., Ground 2). Pet., 54-76. PO wrongly focuses solely on ground (Ground 1A) that was offered under an alternative plain-and-ordinary meaning (PAOM) construction. POPR, 15-18.

I. THE PETITION ADDRESSES THE "CONTROL COMPONENT" ACCORDING TO THE DISTRICT COURT'S CONSTRUCTION

After the Petition was filed, the district court issued a claim construction order, providing a MPF construction of "control component." EX-2002. As PO correctly observed, with respect to "control component," "the court has adopted a claim construction that is similar to Apple's IPR (and district court) construction" except for minor differences. POPR, 8. Petitioner's proposed construction in the Petition and the court's construction for claims 1 and 19 are shown in the table below. EX-2002, 6-9; POPR, 8-9, Pet., 4-6. The same term in claim 20 is similarly construed. *Id.*

	Petitioner's Proposed Construction in IPR	**Court's Construction**

"control component" in claims 1 and 19	one of the switches shown in Figures 5A–6 and described at 5:52–6:5, 6:9–16 and the processor (also referred to as microprocessor, microcontroller, or CPU) that performs the algorithm shown in Figures 7A–C and described at 6:52–8:40; and equivalents thereof	a microcontroller, a processor, a microprocessor, or a CPU that performs the algorithm shown in Steps 706 through 716 in Figure 7A, with reference to all steps shown in Figure 7B other than Step 734 and all steps shown in Figure 7C, or the algorithm described in the corresponding text, See, e.g., 7:20–7:34, 7:42–7:52, 7:60–8:40, and equivalents thereof.

Petitioner's proposed construction of the "control component" in this IPR fully addresses the district court's construction. As shown in the table above, Petitioner's construction is more thorough than the court's construction because it did not omit steps and descriptions of FIGS. 7A-7B and the "corresponding text." EX-2002, 7-8. Moreover, even under the court's construction, the Petition's analysis demonstrates obviousness of the challenged claims.

The Petition provides fulsome analysis that addresses both the court's construction and the more thorough construction in the Petition. Pet., 55-76 (Grounds 2A-2B). Indeed, the Petition offers arguments under two alternative constructions—(1) Ground 1 under PAOM (in case 112(f) does not apply), and (2) Ground 2 under the MPF construction—and the Petition's MPF construction identifies, as corresponding structures, substantially all of the steps in FIGS. 7A-

7C of the ’830 patent. Pet., 3-6. The particular step—“step 762” (“compute output p to power supply; output p to power supply”) of FIG. 7C—that PO alleges is missing is expressly discussed in the Petition. Pet., 72-73 (citing APPLE-1003 (Expert Decl.), [229]-[231]). Moreover, the Petition explains “the software executing on the microprocessor outputs a corresponding control signal to the power supply in accordance with the user [i]nput.” Pet., 73. This analysis is explained by Dr. Hannaford. APPLE-1003, [229]-[231] (describing the combined system computes and outputs a control signal to the power supply according to “user input adjusting the magnitude (e.g., height, frequency, etc.).”)

II. PATENT OWNER MISCHARACTERIZES THE PETITION’S ANALYSIS OF THE “CONTROL COMPONENT”

PO’s sole substantive argument—that the Petition fails to address the “step 762” of FIG. 7C—ignores Grounds 2A-2B that address Petitioner’s claim construction (which covers the district court’s construction). Pet., 55-76. PO improperly focuses only on Ground 1A. POPR, 15-18. As to Grounds 2A-2B, PO simply references back to its discussion of Ground 1A, ignoring Ground 2A-2B’s additional analysis and mischaracterizing the Petition as “rel[ying] on the same disclosures as for the power supply of limitation [1c] and the processor and algorithm of the control component of limitation [1f] in Ground 1A.” POPR, 18-19. Based on this faulty analysis, PO’s argument fails and should be rejected.

Respectfully submitted,

Date: September 25, 2024

/Sangki Park/

W. Karl Renner, Reg. No. 41,265
Thomas Rozylowicz, Reg. No. 50,620
Sangki Park, Reg. No. 77,261
Fish & Richardson P.C.
60 South Sixth Street
Minneapolis, MN 55402
T: 202-783-5070
F: 877-769-7945

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e)(4), the undersigned certifies that on September 25, 2024, a complete and entire copy of this Petitioner's Preliminary Reply were provided via email, to the Patent Owner by serving the email correspondence addresses of record as follows:

Reza Mirzaie (Reg. No. 69,138)
Qi (Peter) Tong (Reg. No. 74,292)
Kristopher Davis (Reg. No. 62,063)
Neil A. Rubin (Reg. No. 67,030)

RUSS AUGUST & KABAT
12424 Wilshire Blvd, 12th Floor
Los Angeles, CA 90025
(310) 826-7474
rak_revelhmi@raklaw.com
ptong@raklaw.com
kdavis@raklaw.com
nrubin@raklaw.com

/Crena Pacheco/

Crena Pacheco
Fish & Richardson P.C.
60 South Sixth Street
Minneapolis, MN 55402
pacheco@fr.com