

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ASTRONICS TEST SYSTEMS, INC.,
Petitioner,

v.

TERADYNE, INC.,
Patent Owner.

IPR2021-00350
Patent 7,395,479 B2

Before DEBRA K. STEPHENS, TREVOR M. JEFFERSON, and
NATHAN A. ENGELS, *Administrative Patent Judges*.

STEPHENS, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

In this *inter partes* review, Astronics Test Systems, Inc. (“Petitioner”) challenges the patentability of claims 1–8 of U.S. Patent No. 7,395,479 B2 (“the ’479 patent,” Ex. 1003), assigned to Teradyne Inc. (“Patent Owner”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision, issued pursuant to 35 U.S.C. § 318(a), addresses issues and arguments raised during the trial in this *inter partes* review. For the reasons discussed below, we determine that Petitioner has proven by a preponderance of the evidence that claims 1–8 of the ’479 patent are unpatentable (*see* 35 U.S.C. § 316(e) (2018) (“In an *inter partes* review instituted under this chapter, the petitioner shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence.”)).

A. Background and Summary

Astronics Test Systems, Inc. (“Petitioner”) filed a petition for *inter partes* review (Paper 1 (“Pet.” or “Petition”)) challenging claims 1–13 of U.S. Patent 7,395,479 B2 (Ex. 1003 (“’479 Patent”)). Teradyne, Inc. (“Patent Owner”) timely filed a Preliminary Response (Paper 6 (“Prelim. Resp.”)). Along with its Preliminary Response, Patent Owner filed a Disclaimer which disclaimed claims 9–13 of the ’479 Patent (Ex. 2002; Prelim. Resp. 10; PO Resp. 7, n.1). As such, claims 1–8 were the remaining challenged claims before us and we did not address Petitioner’s challenge to claims 9–13. We instituted on all grounds directed to claims 1–8, on unpatentability (Paper 8 (“Inst. Dec.”), 39–40).

During the trial, Patent Owner filed a Response (Paper 10 (“PO Resp.”)), Petitioner filed a Reply (Paper 13 (“Pet. Reply”)), and Patent Owner filed a Sur-reply (Paper 15 (“PO Sur-reply”)).

An oral hearing was held April 21, 2022, a transcript of which appears in the record (Paper 23 (“Tr.”)).

Petitioner challenges claims 1–8 as unpatentable under 35 U.S.C. § 103 (Pet. 4). Patent Owner disputes Petitioner’s challenges as presented in the Petition ((*see* PO Resp.).

B. Real Parties in Interest

Patent Owner states that Teradyne, Inc. is the real-party-in-interest (Paper 3, 1).

Petitioner states that Astronics Test Systems, Inc. and Astronics Corporation are the real-parties-in-interest (Paper 1, 2).¹

C. Related Matters

As required by 37 C.F.R. § 42.8(b)(2), the parties identify a related matter. More specifically, Petitioner and Patent Owner indicate the ’479 Patent was asserted in the following district court proceeding: *Teradyne, Inc. v. Astronics Test Systems, Inc.*, No. 2:20-cv-2713 (C.D. Cal.) (Pet. 2; Paper 3, 1).

¹ Petitioner notes the District Court in related proceeding *Teradyne, Inc. v. Astronics Test Systems, Inc.*, No. 2:20-cv-2713 (C.D. Cal.) (Pet. 2; Paper 3, 1), dismissed Astronics Corp. for lack of personal jurisdiction (Ex. 1019); however, Petitioner listed Astronics Corp. “out of [an] abundance of caution” (Pet. 2, n.2). Given that no dispute exists between the Parties as to the stated real parties in interest, the Board accepts the Parties’ representations and, accordingly, does not determine whether the proper entities have been named as real parties of interest in this proceeding.

D. The '479 Patent

The '479 Patent, titled “Over-Voltage Test for Automatic Test Equipment,” issued July 1, 2008 (Ex. 1003, codes (45), (54)). The '479 Patent describes a test system in which a digital test instrument, e.g., “Automatic Test Equipment (ATE),” is “used to verify the performance of electronic devices,” “(sometimes referred to as a Unit Under Test [(UUT)])” (Ex. 1003, 1:16–28). ATEs are “programmed to provide stimulus to a particular circuit or component in the UUT and then measure the output to determine if the UUT has performed to its specifications” (*id.* at 1:30–33). The ATE described by the '479 Patent “is constructed to allow verification of proper operation of a UUT within its intended operating environment” (*id.* at 3:22–24) and, in addition, is “designed to [also] detect over-voltage situations” (*id.* at 5:29–30). Figure 2A shows digital channel 211, a component of the '479 Patent’s ATE, and is reproduced below (*id.* at 2:62–64 (“FIG. 2A is a circuit diagram of a portion of a digital test instrument according to one embodiment of the invention connected to a UUT”, 5:47–48).

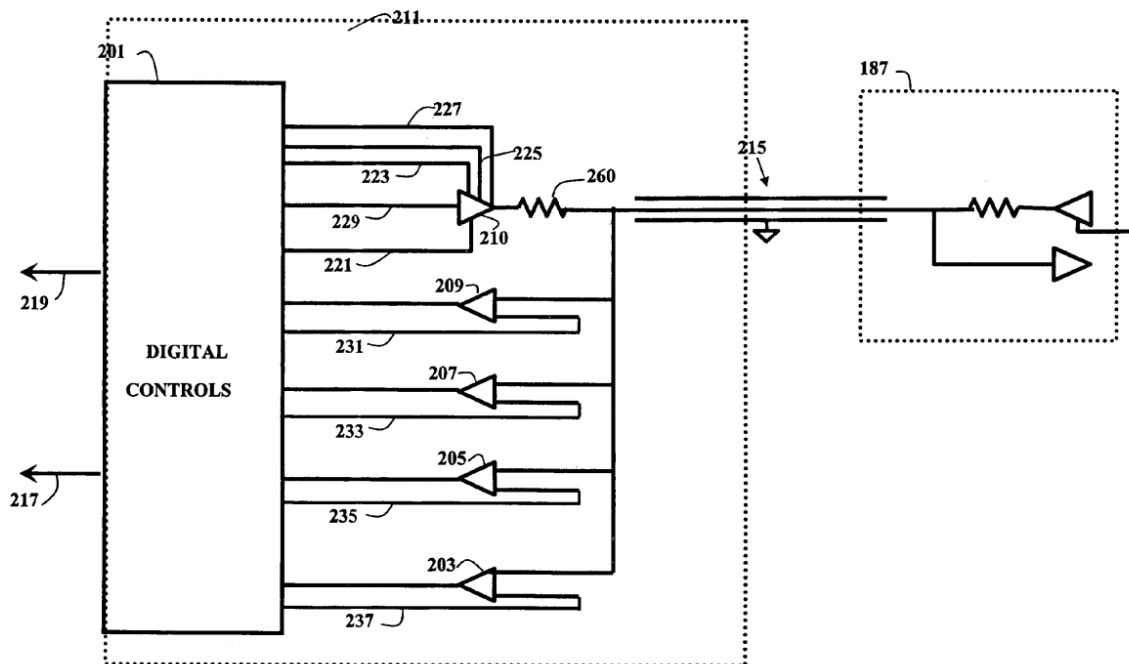


FIG. 2A

As shown in Figure 2A, digital channel 211 connects to interface 187 (of a UUT) via line 215 (*id.* at 4:16–18; *see id.* at 5:47–49, Fig. 1). Digital channel 211 senses and analyzes the value of a signal on line 215 to “determine whether there are faults within [the] system under test” (*id.* at 6:55–63). Specifically, “comparators 207 and 209 [are] coupled to the same signal connection point . . . so that they may receive as an input the signal on line 215” and “indicate whether the level of the signal on line 215 is above or below certain threshold levels that characterize normal operating conditions” (*id.* at 6:23–26, 6:64–66). Those threshold levels are “user programmable” (*id.* at 1:46–51). Then, “[d]igital control circuit 201 compares the outputs of comparators 207 and 209 to [a] programmed expected value. Based on the comparison, digital control circuit 201 places a value on pass/fail output 219,” which indicates “whether there are faults within the system under test” (*id.* at 6:45–54, 6:59–63).

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