

Filed on behalf of Intellectual Ventures Management, LLC

By: Michael D. Specht
Robert G. Sterne
Sterne, Kessler, Goldstein & Fox PLLC
1100 New York Avenue, NW
Washington, D.C. 20005
Tel: (202) 371-2600
Fax: (202) 371-2540

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL
AND APPEAL BOARD

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 7,566,960**

Inter partes review under 35 U.S.C. § 311 and 37 C.F.R. § 42.101 of United States Patent No. 7,566,960 to Conn, titled “Interposing Structure” (hereinafter “the ‘960 Patent)”) is hereby requested. The ‘960 Patent is provided as IVM 1001. The petition for *inter partes* review is brought on behalf of Intellectual Ventures Management, LLC (also referred to herein as “Intellectual Ventures Management”).

I. Grounds for Standing (37 C.F.R. § 42.104(a))

It is certified by the undersigned and the Petitioner, Intellectual Ventures Management, that the ‘960 Patent is available for review. The ‘960 Patent issued on July 28, 2009, more than nine months before the filing date of the present petition and is not currently involved in a post grant review proceeding.

It is certified by the Petitioner, Intellectual Ventures Management, that the Petitioner is not estopped from requesting an *inter partes* review challenging claims 1-13 of the ‘960 Patent on the grounds identified in the petition.

II. Identification of Challenge (37 C.F.R. § 42.104(b))

A. Claim Construction

The terms in claims 1-8 are to be given their broadest reasonable interpretation, as understood by one of ordinary skill in the art and consistent with the disclosure.

Independent claim 9 recites “means for electrically coupling a first micro-bump in a first position in the array of micro-bumps to a first landing pad disposed

opposite the first position and to a second landing pad located in a different position in the array of landing pads,” which is presumed to invoke interpretation of this limitation under 35 U.S.C. § 112(6). The function associated with the “means for” limitation of claim 9 is the “electrically coupling [of] a first micro-bump” to the recited “first landing pad” and “second landing pad.” As properly construed, the corresponding structure for this claim limitation (as described in the specification of the ‘960 Patent and equivalents thereof) refers to caposer 1082 in FIG. 24 of the ‘960 Patent.

With respect to FIG. 24, the specification of the ‘960 Patent discloses:

In addition to illustrating a via caposer having a bypass capacitor, **FIG. 24 illustrates a via caposer that redistributes signals.** FIG. 24 shows a fifth landing pad 1103 on first surface 1086 of caposer 1082, a fifth micro-bump 1105 on a pad on second surface 1087 of caposer 1082, and a third conductive layer 1106 within caposer 1082. **Fifth landing pad 1103 is coupled to third conductive layer 1106 by a via 1107. Via 1107 is also coupled to a pad 1104 on second surface 1087. A via 1108 couples third conductive layer 1106 to fifth micro-bump 1105 through the pad on second surface 1087. Third conductive layer 1106 comprises a conductive trace that provides a portion of a conductive path between fifth landing pad 1103 and fifth micro-bump 1105.** the ‘960 Patent, 18:47-59, emphasis added.

The micro-bump disposed on landing pad 1103 in caposer 1082 discloses the recited “first micro-bump” of claim 9. A first landing pad on package 1084 that corresponds to pad 1104 discloses the recited “first landing pad located opposite to the first position” of claim 9. Further, a second landing pad on package 1084 that corresponds to fifth micro-bump 1105 discloses the recited “second landing pad”

of claim 9. As clearly illustrated in FIG. 24 of the '960 Patent, the micro-bump disposed on landing pad 1103 electrically couples the first landing pad on package 1084 to the second landing pad on package 1084 via conductive layer 1106. Thus, caposer 1082 in FIG. 24 of the '960 Patent is the corresponding structure for the "means for" limitation of claim 9. The remaining limitations of claim 9 are to be given their broadest reasonable interpretation, as understood by one of ordinary skill in the art and consistent with the disclosure.

Claims 10-12 depend from claim 9. Claims 10-12 are to be given their broadest reasonable interpretation, as understood by one of ordinary skill in the art and consistent with the disclosure.

B. Background

The '960 Patent relates to an interposer disposed inside an integrated circuit (IC) package between a die and the IC package, where the interposer provides bypass capacitance and signal redistribution. *See* the '960 Patent, 1:5-9. The '960 Patent was filed on October 31, 2003 as Appl. No. 10/698,704 ("the '704 application"). The '704 application was filed with 16 total claims, in which claims 1, 9, and 12 were independent claims. In response to Requirements for Restriction/Election of March 17, 2005 and June 16, 2005, Patent Owner elected claims 1-8 and 12-16.

After Patent Owner's election of claims 1-8 and 12-16, a summary of the prosecution history is as follows:

- Non-Final Office Action issued on September 29, 2005;
- Response to Non-Final Office Action filed on January 3, 2006;
- Final Office Action issued on April 21, 2006;
- Response to Final Office Action filed on June 19, 2006;
- Advisory Action issued on June 28, 2006;
- Request for Continued Examination filed on July 12, 2006;
- Non-Final Office Action issued on July 27, 2012;
- Response to Non-Final Office Action filed on October 10, 2006;
- Non-Final Office Action issued on January 8, 2007;
- Response to Non-Final Office Action filed on April 9, 2007;
- Non-Final Office Action issued on September 20, 2007;
- Response to Non-Final Office Action filed on December 12, 2007;
- Non-Final Office Action issued on March 13, 2008;
- Response to Non-Final Office Action filed on June 3, 2008;
- Non-Final Office Action issued on September 2, 2008;
- Response to Non-Final Office Action filed on November 25, 2008;
and,
- Notice of Allowance issued on March 24, 2009.

On page 2 of the Notice of Allowance of March 24, 2009, with respect to the reason for allowance, the Examiner stated:

As to independent claims 1 and 12, the prior art of record fails to show the combination recited in any of the claims. In particular, the prior art of record fails to show or collectively teach the interposing structure electrically couples a first micro-bump in a first position of the array of micro-bumps to a first landing pad located opposite the first position and to a second landing pad in the array of landing pads. Applicant's arguments provide reason for allowance.

Claims 1-8 and 12-16 were renumbered as claims 1-8 and 9-13, respectively. As will be discussed in detail below, the above-noted features of renumbered

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.