

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

INTELLECTUAL VENTURES MANAGEMENT, LLC  
Petitioner

v.

Patent of XILINX, INC.  
Patent Owner

---

Case IPR2012-00023  
Patent 7,994,609

---

Before SALLY C. MEDLEY, KARL D. EASTHOM, and JUSTIN T.  
ARBES, *Administrative Patent Judges*.

EASTHOM, *Administrative Patent Judge*.

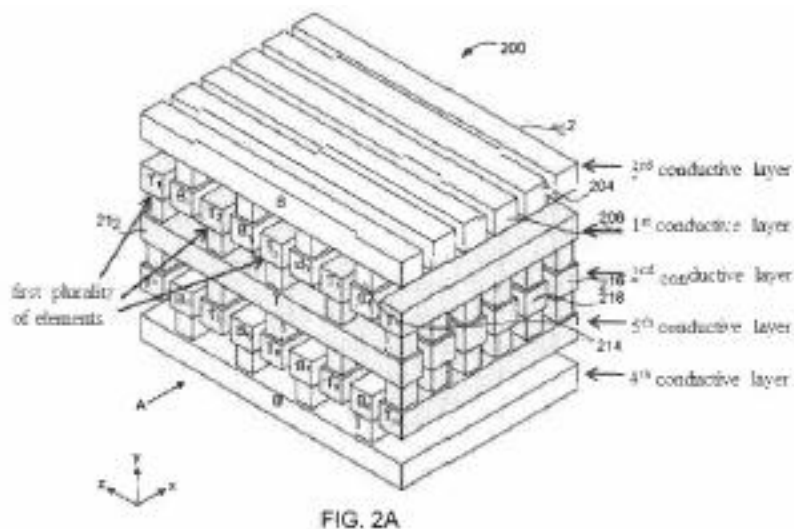
DECISION  
Institution of *Inter Partes* Review  
*37 C.F.R. § 42.108*

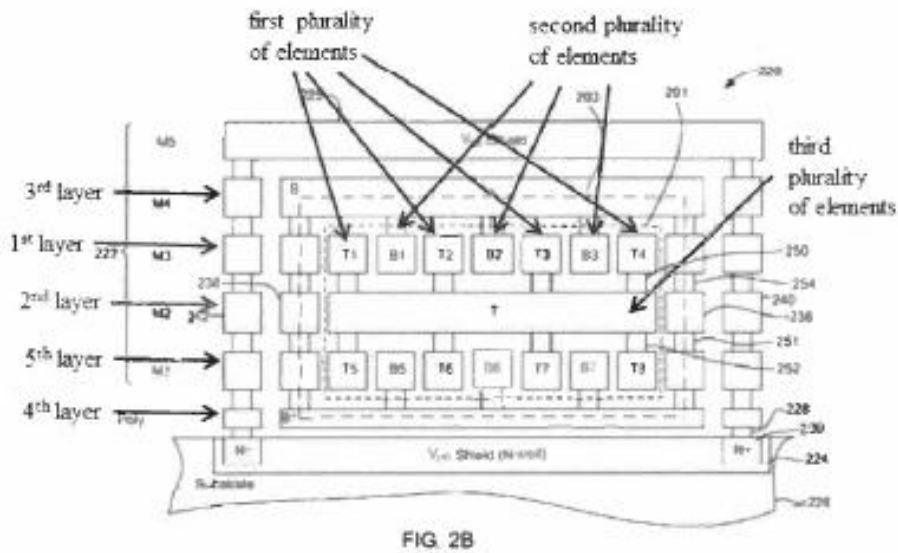
Petitioner, Intellectual Ventures Management, LLC (“IVM”), filed a petition to institute an *inter partes* review of claims 1-19 of U.S. Patent 7,994,609 owned by Xilinx, Inc. (Paper 3.) *See* 35 U.S.C. § 311. For the reasons that follow, the Board, acting on behalf of the Director, hereby institutes an *inter partes* review of the ‘609 patent. *See* 35 U.S.C. § 314.

## I. INTRODUCTION

The ‘609 patent describes a shielded capacitor in an integrated circuit (IC) having a core capacitor portion which includes multiple layers of conductive elements. Shields, including a shield capacitor portion and a reference shield, surround the core capacitor portion. The shield capacitor portion has multiple conductive elements in different metal layers. According to claim 1, the shield capacitor portion forms part of a capacitor node and lies partially between the reference shield and the core capacitor portion. The shields reduce electronic noise. (*See* Ex. 1001, col. 2, l. 40 to col. 3, l. 3; col. 5, ll. 1-4; col. 6, ll. 24-31; Abstract.)

IVM annotates Figures 2A and 2B from the ‘609 patent to identify some of the disclosed elements recited in claim 1:





(Paper 3 at 4-5.)

IVM's annotated figures *supra* show the centrally located core capacitor including a first (T1, T2) and second (B1, B2) plurality of elements, the numbered conductive layers, two capacitor nodes, and shields. With respect to claim 1 (which follows) and similar claim 13, layer T corresponds to a second part of a first capacitor node, layers B and B' correspond partially to a shield capacitor portion and a second part of a second capacitor node, and the  $V_{DD}$  shield corresponds to a reference shield.

Representative claim 1 follows with bracketed information added to help illustrate an example (i.e., without limitation) structure depicted in the annotated figures *supra* representing claim elements:

1. A capacitor in an integrated circuit ("IC") comprising:  
a core capacitor portion having a first plurality of conductive elements [*see* T1,T2] electrically connected to and forming a first part of a first node of the capacitor formed in a first conductive layer of the IC and a second plurality of conductive elements [*see* B1, B2] electrically connected to and forming a

first part of a second node of the capacitor formed in the first conductive layer, the first plurality of conductive elements alternating with the second plurality of conductive elements in the first conductive layer, and a third plurality of conductive elements [see T] electrically connected to and forming a second part of the first node formed in a second conductive layer adjacent to the first conductive layer, at least portions of some of the second plurality of conductive elements overlying and vertically coupling to at least portions of some of the third plurality of conductive elements;

a shield capacitor portion [see B, B'] having a fourth plurality of conductive elements formed in at least the first conductive layer of the IC, the second conductive layer of the IC, a third conductive layer of the IC, and a fourth conductive layer of the IC, the first conductive layer and the second conductive layer each being between the third conductive layer and the fourth conductive layer, the shield capacitor portion being electrically connected to and forming a second part of the second node of the capacitor and surrounding the first plurality of conductive elements and the third plurality of conductive elements; and

a reference shield [see V<sub>DD</sub> Shield] electrically connected to a reference node of the IC other than the second node of the capacitor, the shield capacitor portion being disposed between the reference shield and the core capacitor portion.

IVM asserts the following six obviousness grounds of rejection under 35 U.S.C. § 103:

Ground 1. Claims 1, 3, 5, 6, and 10-12 based on Paul, U.S. 6,737,698 (May 18, 2004).

Ground 2. Claims 2 and 13-17 based on Paul and Anthony, U.S. 7,439,570 (Oct. 21, 2008).

Ground 3. Claim 4 based on Paul and Hsueh, U.S. 7,286,071 (Oct. 23, 2007).

Ground 4. Claims 7-9 based on Paul and Brennan, U.S. 6,903,918 (June 7, 2005).

Ground 5. Claims 18 and 19 based on Anthony and Marotta, U.S. 7,238,981 (July 3, 2007).

Ground 6. Claims 1 and 13 based on Anthony and Bi, U.S. Pub. 2008/0128857 (June 5, 2008).

## II. DECISION ON PETITION

### A. Claim Construction

The Board interprets a claim in an *inter partes* review using the “broadest reasonable construction in light of the specification of the patent in which it appears.” 37 C.F.R. § 42.100(b). *See also* Office Patent Trial Practice Guide, 77 Fed. Reg. 48756, 48766 (Aug. 14, 2012) (*Claim Construction*). There is a “heavy presumption” that a claim term carries its ordinary and customary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002). But claims “must be read in view of the specification. . . . [T]he specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *See Phillips v. AWH Corp.*, 415 F.3d, 1303, 1317 (Fed. Circ. 2005) (en banc).

The following claim construction applies.

Shield. In the context of the ‘609 patent and as supported by Paul, a “shield” as recited in the claims includes at least one conductive layer (whether including

# 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.