NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

IN RE HIOK NAM TAY

2014-1415

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Serial No. 13/011,864.

Decided: October 14, 2014

HIOK NAM TAY, of Washington, DC, pro se.

NATHAN K. KELLEY, Solicitor, United States Patent and Trademark Office, of Alexandria, Virginia, for appellee. With him on the brief were WILLIAM LAMARCA and MICHAEL S. FORMAN, Associate Solicitors.

Before PROST, *Chief Judge,* BRYSON and HUGHES, *Circuit Judges.*

PER CURIAM.

Hiok Nam Tay argues that the United States Patent and Trademark Office improperly construed a limitation in his patent application by failing to consider extrinsic evidence. Because the Patent Office correctly construed

the limitation by giving the claims their broadest reasonable construction, we affirm.

I

In January 2011, Mr. Tay filed U.S. Patent Application No. 13/011,864. It relates to improving the performance of electronic image sensors in photographic equipment. According to the '864 application, electronic image sensors typically have millions of light-capturing photodiodes arranged in a tightly spaced pixel array and on a substrate. This array may include many routing wires stacked on the surface of the array. The wires electrically connect each photodiode to a light reader. To avoid blocking a photo-absorption region on the substrate of each photodiode, the routing wires are spaced apart to form windows that allow light to travel into the photo-absorption regions.

Because of the tight spacing and the gaps created by the stacked wires, each photo-absorption region may inadvertently sense light that should be sensed only by nearby photo-absorption regions, resulting in a lower quality picture. The '864 application aims to solve this problem by including a reflective "contact" adjacent to the routing wires that surrounds and reflects light back down to the photo-absorption region. The contact is constructed from a reflective material such as a metal and it is electrically insulated from other components by a dielectric barrier. Representative claim 1 reads:

> A method for forming an image sensor that includes a pixel array across a substrate, the pixel array comprising a photo-absorption region disposed under a region transparent to light, the method comprising:
>
> > forming a dielectric barrier on the substrate; and,

> forming a *contact* on the dielectric barrier and insulated from the substrate by the dielectric barrier, the floating *contact* having a light-reflective lateral side facing and bounding the region.

R.A. 36 (emphases added).

The Examiner rejected the claims in the '864 application as anticipated by U.S. Patent Application No. 2007/0,052,053. Mr. Tay appealed to the Patent Trial and Appeal Board, which affirmed the rejection of all claims. On request for rehearing, the Board maintained its decision. Mr. Tay appeals the Board's construction of "contact" and its finding that the prior art '053 application discloses a contact under Mr. Tay's construction of the term. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

II

A claim is anticipated if each limitation is found in a single prior art reference. 35 U.S.C. § 102; *In re Rambus, Inc.*, 753 F.3d 1253, 1256 (Fed. Cir. 2014). Anticipation involves two steps. We first construe the claim, a question of law, and second we compare the construed claim to the prior art, a question of fact. *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 714 (Fed. Cir. 1998). Claims in patent applications are given their broadest reasonable construction in light of the claims themselves and the specification as it would be interpreted by one of ordinary skill in the art. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005). And although "extrinsic evidence may be useful[,] . . . it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." *Id.* at 1319. We review the Board's legal conclusions de novo and its factual findings for substantial evidence. *In re Gartside*, 203 F.3d 1305, 1315–16 (Fed. Cir. 2000).

The Board adopted the Examiner's finding that the "reflective layer" disclosure in the prior art '053 application is a "contact" within the scope of the '864 application's claims. The Board also found that the prior art '053 application taught that this "reflective layer" could be a conductive layer made of copper, aluminum, tungsten, or other appropriate conductive materials; that it is disposed on a dielectric layer and bounding a light-receiving element of an image sensor; and that it has a "transparent material layer" disposed above it. *See* '053 application ¶ [0039], Fig. 1. The term contact is not defined in the '864 application. Based on our review of the '864 application and the prior art, we agree that the broadest reasonable construction of contact encompasses the reflective layer disclosed by the prior art '053 application.

Citing extrinsic evidence, Mr. Tay argues that the construction of "contact" requires that it be "embedded" in a "first level dielectric on the substrate" and below a "lowest horizontal metal interconnect layer." Appellant's Br. 3. But the language of claim 1 and the specification do not support limiting contact in the manner that Mr. Tay suggests. Instead, the specification discloses that a contact can be adjacent to a dielectric layer and on a substrate or on a conductive wire, and that a contact can be adjacent to or below a conductive wire. Accordingly, we reject Mr. Tay's invitation to improperly narrow the construction of contact.

In light of the foregoing, we find that the record supports the Board's conclusion that the '053 application anticipates the '864 application.

III

Because it properly construed the term at issue and because its decision is supported by substantial evidence, the Board correctly denied Mr. Tay's petition for rehearing. Accordingly, we affirm.

AFFIRMED

No costs.