NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

IRIS CORPORATION BERHAD,
Plaintiff-Appellant

v.

UNITED STATES,
Defendant-Appellee

2020-1984

Appeal from the United States Court of Federal Claims in No. 1:15-cv-00175-EGB, Senior Judge Eric G. Bruggink.

Decided: February 12, 2021

STEPHEN NORMAN WEISS, Law Office of Stephen N. Weis, New York, NY, for plaintiff-appellant. Also represented by PAUL D. BIANCO, Fleit Intellectual Property Law, Miami, FL.

PHILIP CHARLES STERNHELL, Commercial Litigation Branch, Civil Division, United States Department of Justice, Washington, DC, for defendant-appellee. Also represented by JEFFREY B. CLARK, GARY LEE HAUSKEN.

Before MOORE, REYNA, and STOLL, *Circuit Judges*.

REYNA, *Circuit Judge*.

In this appeal, Appellant IRIS Corporation Berhad challenges an order of summary judgment entered against it. The United States Court of Federal Claims granted the government's motion for summary judgment of noninfringement of IRIS's patent covering a method of manufacturing electronic passports. The Court of Federal Claims construed the asserted claim to mean that certain inlays or inserts include an antenna. In its summary judgment ruling, the Court of Federal Claims concluded that IRIS did not allege that the inlays or inserts in the accused devices included an antenna. Because the Court of Federal Claims did not err in its claim construction or the grant of summary judgment, we affirm.

BACKGROUND

On February 24, 2015, IRIS Corporation Berhad ("IRIS") filed suit against the United States government for alleged infringement of IRIS's patent, U.S. Patent No. 6,111,506 ("the '506 patent"). J.A. 56–62. The '506 patent, entitled "Method of Making an Improved Security Identification Document Including Contactless Communication Insert Unit," is directed to a method for manufacturing electronic passports. J.A. 56.

Claim 1, reproduced in its entirety below, is the only independent claim of the '506 patent:

> 1. A method of making an identification document comprising the steps of:
>
> forming a contactless communication insert unit by electrically connecting an integrated circuit including a microprocessor, a controller, a memory unit, a radio frequency input/output device and an antenna, and disposing a metal ring to surround the integrated circuit;

> disposing the contactless communication insert unit on a substrate and laminating it to form a laminated substrate;
>
> supplying a first sheet of base material;
>
> supplying a second sheet of base material;
>
> disposing the second sheet of base material on top of the first sheet of base material and inserting the laminated substrate including the contactless communication insert unit between the first and second sheets of base material; and
>
> joining a third sheet of base material to the first and second sheets of base material having the laminated substrate disposed therebetween, the third sheet of base material containing printed text data located so as to be readable by humans.

'506 patent, col. 20 ll. 10–34.

On January 22, 2020, the Court of Federal Claims issued its claim construction order. J.A. 18–32. The court construed, among other terms, the term "integrated circuit," found in the first step of claim 1. The government proposed construing the term to mean that an antenna is part of the integrated circuit, whereas IRIS argued that the plain language of the claim supported a reading that one must connect the integrated circuit and an antenna, i.e., connect an integrated circuit *to* an antenna. J.A. 25–26. But the court was not convinced by IRIS's argument.

The Court of Federal Claims stated that it "need look no further than the plain language" of the claim to see that it expressly defines the components of the integrated circuit, including an antenna, and not what the integrated circuit is connected to. J.A. 26. The court explained:

> [A] list of five components follows the word "including," which unambiguously shows that the integrated circuit in this patent includes an

> antenna. . . . [T]he last part on the list is "an antenna." Grammatically, if the list were meant to end with the input/output device, the conjunction "and" would appear before that phrase rather than before "an antenna." Plaintiff's construction makes the step ambiguous because the list is missing a conjunction. Nor is the conjunction "and" interchangeable with prepositions such as "to" or "with." While it is possible that "and" could indicate a pair of items that will connect, in this case the foregoing use of "including" indicates that "and" is a conjunction concluding a list.

Id. The Court of Federal Claims construed "integrated circuit" to mean "a microprocessor, a controller, a memory unit, a radio frequency input/output device, an antenna, and the connections thereto." *Id.* ("This construction does not leave 'connecting' floating freely without an object; rather, the term 'by electrically connecting' is an instruction to connect the parts of an integrated circuit.").

On April 27, 2020, the Court of Federal Claims granted the government's motion for summary judgment of noninfringement for all the accused products, basing its conclusion in part on its construction of the term "integrated circuit." J.A. 2, 7–17.

IRIS argues, among other things, that the Court of Federal Claims erred in construing the term "integrated circuit" to require an antenna to be a part of the integrated circuit. *See* Appellant's Br. at 12–16. IRIS did not allege in its infringement contentions that the accused devices included an antenna, but rather that the inlays or contactless communication inserts "connect[] an antenna via the [input/output] area of the [integrated circuit.]" J.A. 8. We have jurisdiction under 28 U.S.C. § 1295(a)(3).

DISCUSSION

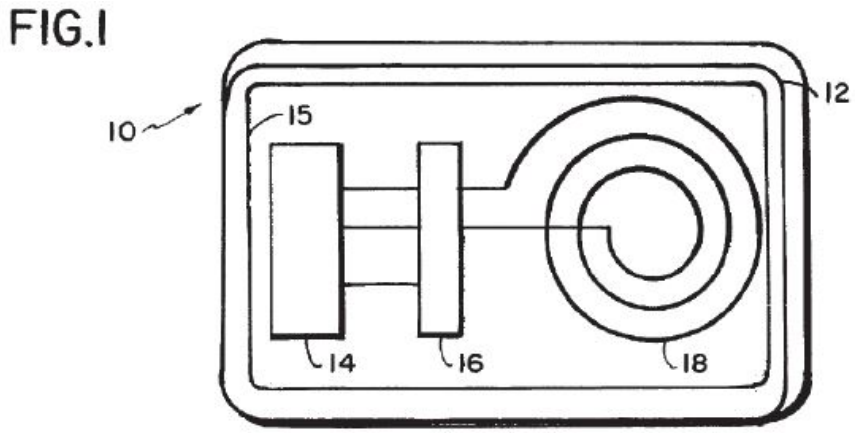
We review a decision granting summary judgment of noninfringement de novo. *Lacks Indus., Inc. v. McKechnie Vehicle Components U.S.A., Inc.*, 322 F.3d 1335, 1341 (Fed. Cir. 2003). Here, the summary judgment grant was based on the court's claim construction decision. The ultimate interpretation of a claim term, as well as interpretations of the intrinsic evidence, are legal conclusions that this court reviews de novo. *Liberty Ammunition, Inc. v. United States*, 835 F.3d 1388, 1395 (Fed. Cir. 2016) (citing *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331 (2015)). Subsidiary factual determinations based on extrinsic evidence are reviewed for clear error. *Info–Hold, Inc. v. Applied Media Techs. Corp.*, 783 F.3d 1262, 1265 (Fed. Cir. 2015) (citing *Teva*, 574 U.S. at 332).

We construe claim terms according to their ordinary and customary meaning as understood by a person of ordinary skill in the art in question at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005). It is the function of the claims to set forth what limits exist on a patentee's invention. *See SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). Further, the meaning of a claim term "must be considered in the context of all of the intrinsic evidence, including the claims, the specification, and the prosecution history." *Iridescent Networks, Inc. v. AT&T Mobility, LLC*, 933 F.3d 1345, 1350 (Fed. Cir. 2019). The court may also consider extrinsic evidence. *Phillips*, 415 F.3d at 1319.

First, we look to the claim language. We agree with the Court of Federal Claims that there is no need to look further than the plain language of the claim here to read the antenna as being a component of the integrated circuit, not a separate element to which the integrated circuit attaches. The use of "including," followed by a list of components, followed by "and," followed by "an antenna" indicates that the antenna is the last item in the list of

items. We agree with the Court of Federal Claims that "and" would appear before the "input/output device" if the input/output device was the last in the list of components.

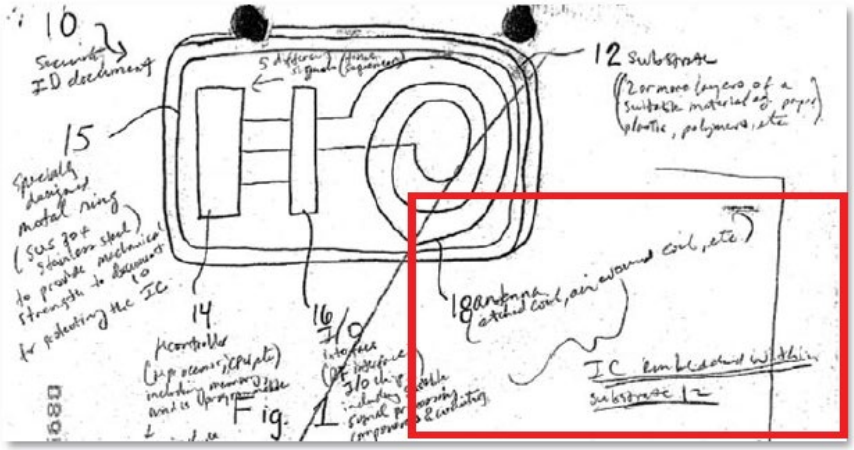
Second, we look to the specification. IRIS relies on Figure 1 of the '506 patent in which, it argues, antenna 18 is "separate and apart" from the integrated circuit components, such as the microprocessor 14, and the input/output device 16:



'506 patent, Fig. 1. But, as the government notes in its Response Brief, the claimed metal ring 15 is shown as surrounding all of the claimed elements of the "integrated circuit," including antenna 18. *See* '506 patent, col. 20 ll. 17–18 ("disposing a metal ring to surrounding the integrated circuit"); *id.* at col. 12 ll. 48–51 ("A specially designed metal ring 15 . . . is located on the substrate 12 to provide mechanical strength to the document 10 for protecting the integrated circuit."). Further, nothing in this figure or portions of the disclosure citing this figure require that the antenna be separate from the integrated circuit; there is no delineated integrated circuit that excludes antenna 18.

The specification contains further support for the Court of Federal Claims's construction of integrated circuit. Referencing Figure 6, the specification lists the antenna as a component of the integrated circuit without reference to any electrical connection: "Thus, the document 10 contains the conventional security features such as visible but tamper-proof identification data, as well as, novel and increased security features provided by the tamper-proof, embedded integrated circuit including the microprocessor 14, [input/output] device and antenna 18." '506 patent, col. 14 ll. 47–52. The antenna is listed again as a component of the integrated circuit: "The boarding pass generator 114 generates a boarding pass in the form of an improved security identification document 10 including an integrated circuit IC containing the components 14, 16, and 18." *Id.* at col. 17 ll. 8–13.

Third, we look to the prosecution history. The government argues that the prosecution history confirms its proposed construction, citing to handwritten notations on a copy of Figure 1 that is included in the prosecution history. In the image reproduced below, the government annotated, with a red box, notes from the prosecution history stating "IC embedded within substrate 12" and including braces that include "18 antenna (etched coil, air wound coil, etc[.])" as part of the "IC" (i.e., integrated circuit):



See Appellee's Br. at 35 (citing J.A. 211). We agree that this further supports the Court of Federal Claims's construction of "integrated circuit."

Lastly, we look at extrinsic evidence. IRIS cites: (1) ISO/IEC 7816, the international standard related to electronic identification cards; and (2) the government's expert witness's opinion offered in an inter partes review ("IPR") before the Patent Trial and Appeal Board. But neither is availing. The extrinsic evidence presented contradicts the plain language of the claim and the language of the specification. *See Phillips*, 415 F.3d at 1317 ("[W]hile extrinsic evidence can shed useful light on the relevant art, we have explained that it is less significant than the intrinsic record in determining the legally operative meaning of claim language." (internal citations and quotations omitted)); *see also id.* at 1324 ("Nor is the court barred from considering any particular sources or required to analyze sources in any specific sequence, as long as those sources are not used to contradict claim meaning that is unambiguous in light of the intrinsic evidence."). Further, the Court of Federal Claims rejected this same evidence as "unpersuasive on the meaning of 'integrated circuit.'" J.A. 25. We agree.

After a review of the intrinsic and extrinsic evidence of record, we conclude that the Court of Federal Claims's

construction of "integrated circuit" as including an antenna was not erroneous. Because the Court of Federal Claims relied on this construction in finding no literal infringement, we affirm the Court of Federal Claims's grant of summary judgment of noninfringement.

CONCLUSION

Because the construction of "integrated circuit" is dispositive, we affirm.

AFFIRMED

COSTS

Costs to the appellee.