

NOTE: This disposition is nonprecedential.

**United States Court of Appeals  
for the Federal Circuit**

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**ROKU, INC.,**  
*Appellant*

v.

**UNIVERSAL ELECTRONICS, INC.,**  
*Appellee*

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2023-1019

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Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2021-00455.

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Decided: June 18, 2024

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MICHAEL NICODEMA, Greenberg Traurig, P.A., West Palm Beach, FL, argued for appellee. Also represented by ERIK BOKAR, Orlando, FL; BENJAMIN GILFORD, MATTHEW J. LEVINSTEIN, JAMES J. LUKAS, JR., Chicago, IL.

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Before TARANTO, STOLL, and STARK, *Circuit Judges*.

STARK, *Circuit Judge*.

Roku, Inc. (“Roku”) appeals the final written decision of the Patent Trial and Appeal Board (“Board”) holding that claims 1-9 of U.S. Patent No. 10,325,486 (“486 patent”) are not unpatentable as obvious. Because the Board’s holding is premised on an erroneous claim construction, we vacate and remand.

## I

The ’486 patent, entitled “System and Method for Optimized Appliance Control,” is owned by Universal Electronics Inc. (“UEI”). The ’486 patent discloses “enhanced methods for appliance control via use of a controlling device, such as a remote control, smart phone, tablet computer, etc., and in particular . . . methods for taking advantage of improved appliance control communication methods and/or command formats.” ’486 patent at 1:66-2:4. Roku’s annotated version of Figure 1, reproduced below, is illustrative and shows (in green) several “controllable appliances” connected to a user’s home theater, including television 106, audio/video receiver 120, set-top box 110, and DVD player 108. *Id.* at 3:44-49. The home theater device (or the “Universal Control Engine” device) 100 (shown in blue) communicates with the controllable appliances using, for example, wireless infrared (IR) signals 114 and/or a wired HDMI connection 112 (shown in orange). *Id.* at 3:61-66. A user wishing to operate one of the controllable appliances uses a “controlling device” (shown in red), such as a remote control 102 or smart device 104, to select various icons displayed on a user interface associated with the home theater device. *Id.* at 11:40-55, 14:39-63. The user interface may be displayed on the controlling device’s screen or the home theater’s television screen. Once the user makes a selection from the displayed icons,

the home theater device issues the appropriate command to the target controllable appliance using a communication method and protocol appropriate for that appliance.

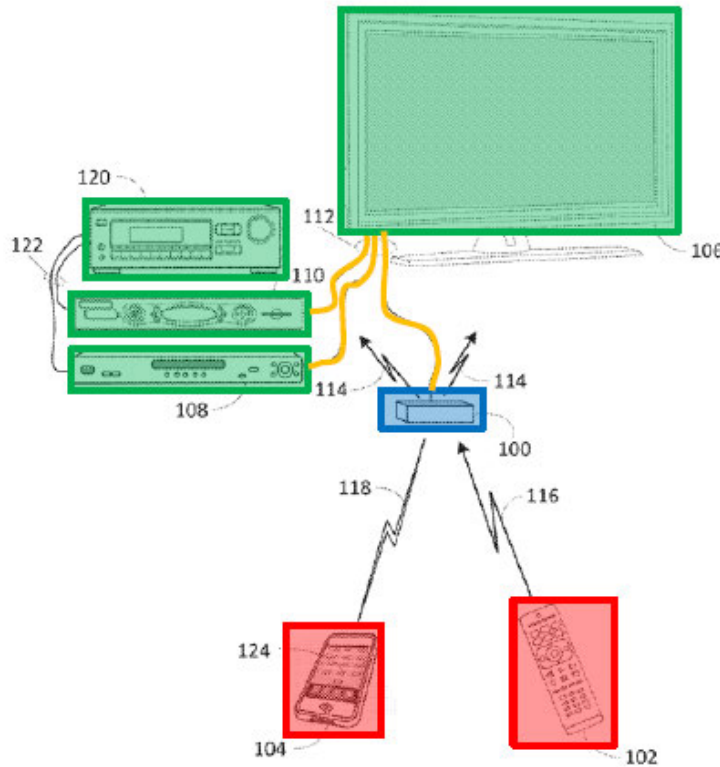


Figure 1

Claim 1, the sole independent claim, recites:

A method for configuring a user interface that is caused to be presented by a home theater device in

a display device associated with the home theater device, comprising:

receiving at the home theater device from a controllable appliance in communication with the home theater device via use of a high definition multimedia (“HDMI”) connection *data that functions to identify a controllable function of the controllable appliance*;

automatically adding by the home theater device to the user interface an icon representative of the controllable function of the controllable appliance that was identified by the data received from the controllable appliance;

in response to the home theater device receiving from a controlling device a command transmission that is indicative of a selection of the added icon from the user interface when the user interface is displayed in the display device associated with the home theater device,

causing the home theater device to issue a command to at least the controllable appliance to control at least the controllable function of the controllable appliance that was identified by the data received from the controllable appliance.

*Id.* at 17:2-24 (emphasis added).

After UEI sued Roku for patent infringement, Roku filed a petition seeking *inter partes* review (“IPR”) of all nine claims of the ’486 patent, contending the claims are obvious in view of U.S. Patent No. 9,239,837 (“Chardon”) and HDMI Licensing, LLC, High-Definition Multimedia Interface, Specification Version 1.3a (November 10, 2006) (“HDMI 1.3a”). The Board instituted the IPR and then, in

a final written decision, rejected Roku’s obviousness challenge. The Board’s conclusion was based largely on its construction of a portion of what it labelled the “receiving limitation.” Specifically, the Board construed the term “data that functions to identify a controllable function” to require that “*the data itself* identifies a controllable function of the controllable appliance from which the data is received.” J.A. 18. The Board rejected Roku’s proposed, broader construction, which was “data that can be used *in connection with* other information, to identify a controllable function of the controllable appliance.” *Id.* Applying its construction to the prior art, the Board found that Roku “does not sufficiently establish that the ‘receiving’ limitation of independent claim 1 is met by the combination of Chardon and HDMI 1.3a.” J.A. 37.

The Board had jurisdiction under 35 U.S.C. § 316(c). We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A) and 35 U.S.C. §§ 141(c), 319.

## II

We review the Board’s claim construction de novo and any subsidiary factual findings based on extrinsic evidence for substantial evidence. *See Personalized Media Commc’ns, LLC v. Apple Inc.*, 952 F.3d 1336, 1339 (Fed. Cir. 2020). Claim terms “are generally given their ordinary and customary meaning,” which is the meaning understood by one of ordinary skill in the art when read in the context of the claim, specification, and prosecution history. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313-14 (Fed. Cir. 2005) (en banc).

## III

The only issue on appeal is Roku’s challenge to the Board’s construction of the term “data that functions to identify a controllable function of the controllable appliance.” Roku argues that the Board’s construction contradicts the intrinsic evidence by precluding the use of other

information in connection with the claimed data to identify the controllable function. We agree with Roku that the Board's construction is too narrow. Properly construed, the limitation instead encompasses "data that can be used in connection with other information or by itself, to identify a controllable function of the controllable appliance."

We agree with Roku that the claim language itself provides substantial support for Roku's construction, which understands the disputed term to be broad enough to capture other, additional data that contributes to identifying a controllable function. Unlike the Board, we do not find that "the presence of the words 'functions to' in the disputed phrase creates a degree of ambiguity." J.A. 19. The phrase "X functions to identify Y" has a clear meaning that, as noted by Roku, "is broad in scope." Appellant's Br. at 31. "Functions to identify" connotes a relationship between X and Y in which X is used in some fashion in the process of identifying Y. The phrase does not limit *how* the identification of Y is achieved beyond instructing that X plays some role in doing so. Put another way, the plain and ordinary meaning of "X functions to identify Y" does not, standing alone, limit the relationship between X and Y to the use of only X, or the use of X in a particular manner. Thus, the plain and ordinary meaning of "data that functions to identify a controllable function" permits the indirect use of such data as well as the use of additional data.

We disagree with the Board that other claim language surrounding the disputed term supports a construction requiring the claimed data, alone, to directly identify the controllable function. Based on claim 1's repeated reference to "the controllable function of the controllable appliance *that was identified* by the data received from the controllable appliance," as recited in the "automatically adding" and "causing" limitations, the Board found that "the data" refers back to the data from the contested "functions to" limitation, and "there is no apparent room in the language 'that was identified by the data' for the introduction or

consideration of such ‘other information’ that Petitioner would like to use ‘in connection with’ the recited ‘data’ to ‘identify the controllable function.’” J.A. 19. We disagree. Instead, in our view, the “identified by the data” language does not require that the controllable function be identified by that data *alone* or by that data *directly*. “Identified by” imparts the same broad scope as the “functions to” language discussed above.

The Board also found support for its construction in the other aspects of claim 1, which establish three requirements that, according to the Board, could only be satisfied if the claimed data identifies the controllable function by itself: “(1) the data must be received from the controllable appliance; (2) the data is used to add an icon to the user interface; and (3) selecting the icon sends a command to the controllable appliance to control the controllable function identified by the data.” J.A. 20-21 (internal quotation marks omitted). Assuming claim 1 contains these three requirements, they are all still met under Roku’s proposed construction; the claimed data may still come from the controllable appliance, and be used to add an icon to the user interface (which, when selected, sends a command to control the controllable function identified by a combination of the claimed and other data), even if (1) the additional data may or may not itself come from the controllable appliance; (2) “the data” is still used to add an icon to the user interface, even if additional data is also used in these processes along with the claimed data. Thus, these purported requirements do not favor the Board’s construction.

The specification provides additional support for Roku’s proposed construction. Although the Board found the specification “of relatively little help in determining which of the proposed constructions of ‘data that functions to identify a controllable function’ is most compelling,” J.A. 21, both the Board and the parties recognize that the specification expressly describes an embodiment in which the controllable function is identified by the claimed data in

conjunction with other information. In particular, the parties agree that the “icon information” described in relation to Figure 15 is an embodiment of the claimed “data that functions to identify a controllable function,” J.A. 21, and the specification explains that this icon information “may be used *in connection with* information stored on the smart device, stored in the internet cloud and/or at a remote server” to identify the controllable function, ’486 patent at 14:46-49 (emphasis added). Thus, the parties have essentially agreed that the specification teaches an embodiment in which the claimed data is used “in connection with” other data to identify the controllable function. Given our “strong presumption against a claim construction that excludes a disclosed embodiment,” *In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1324 (Fed. Cir. 2011), the parties’ agreement renders the Board’s construction unlikely to be correct.

Finally, we turn to the prosecution history. We find it provides no clear basis for deviating from the disputed term’s broad plain and ordinary meaning, and we disagree with the Board’s findings to the contrary.

During prosecution, the applicant attempted to distinguish a prior art reference that had been the basis for an anticipation rejection, U.S. Patent Application Publication No. 2007/0229465 (“Sakai”), by stating:

Thus, in Sakai, the user interface is determined based upon a state of a device within the system, e.g., determined based upon the state of the menu that is displayed on the TV. Furthermore, while the function buttons 130 that are caused to be displayed in the user interface may be used to control various individual functions, e.g., to control a navigation function (¶ 0059), to control a rewind function, a pause function, a fast forward function, etc. (¶ 0068), in Sakai the controllable device, e.g., the TV, DVD player, radio/amplifier, does not function to provide



to the server unit 330 data indicative of *such controllable functions* and, furthermore, the function buttons 130 are not used to transmit a command to control *the state of the device within the system that was reported to/determined by the server unit 330*, i.e., in Sakai the server unit 330 does not issue a command to at least the controllable appliance to control at least *the state of the controllable appliance that may have been identified by data received from the controllable appliance*. In short, it is respectfully submitted that the state data that is used in the system of Sakai is not, and would not be considered by one of skill in the art to be, the claimed data indicative of a controllable function of a controllable appliance.

J.A. 864 (emphasis in original).

Although the Board did not perform a prosecution disclaimer analysis, *see* J.A. 27 n.4, we may do so in the first instance on de novo review. *See In re Comiskey*, 554 F.3d 967, 975 (Fed. Cir. 2009) (holding that *Chenery* permits resolution of legal issue which is not “a determination of policy or judgment which the agency alone is authorized to make”) (quoting *SEC v. Chenery Corp.*, 318 U.S. 80, 88 (1943)). We find that the patent applicant’s statements made during prosecution of the ’486 patent did not constitute a clear and unmistakable disclaimer. As noted by the Board, “[m]ultiple amendments were made simultaneously during prosecution” and “there is a degree of intermingling in the Applicant’s responsive remarks,” J.A. 26, resulting in, as Roku states, a “file history . . . that . . . is ambiguous,” Appellant’s Br. at 57.

We recognize that “[a]n applicant’s invocation of multiple grounds for distinguishing a prior art reference does not immunize each of them from being used to construe the claim language.” *Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1374 (Fed. Cir. 2007). Hence, just because,

as Roku puts it, the applicant’s “amendment and statement seem to distinguish Sakai on two grounds,” Appellant’s Br. at 54 – that is, based on both the lack of HDMI communication from Sakai’s server unit and Sakai’s “state data” – does not automatically mean neither statement can be a disclaimer. Nevertheless, the applicant’s statements, which do not even include the disputed claim language, *see Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1333 (Fed. Cir. 2004) (finding no disclaimer where applicant’s statements distinguished on basis of terminology not found in disputed claim term), are too ambiguous to constitute a clear and unmistakable disclaimer, *see CUPP Computing AS v. Trend Micro Inc.*, 53 F.4th 1376, 1382 (Fed. Cir. 2022) (“[W]here the alleged disavowal is ambiguous, or even amenable to multiple reasonable interpretations, we have declined to find prosecution disclaimer.”) (internal quotation marks omitted).

Our conclusion that there is no clear and unmistakable disclaimer does not end our analysis of the prosecution history, which can still “inform the meaning of the claim language by demonstrating how the inventor understood the invention.” *Phillips*, 415 F.3d at 1317. The meaning of a claim term “must be considered in the context of *all* the intrinsic evidence, including . . . prosecution history.” *Iridescent Networks, Inc. v. AT&T Mobility, LLC*, 933 F.3d 1345, 1350 (Fed. Cir. 2019) (emphasis added). However, where, as here, the plain and ordinary meaning of a disputed claim limitation is clear, the limitation generally “should be granted its full scope,” absent an explicit redefinition or disavowal. *Wasica Fin. GmbH v. Cont’l Auto. Sys., Inc.*, 853 F.3d 1272, 1282 (Fed. Cir. 2017). Considering the prosecution history from this perspective, we find it too ambiguous to narrow the clear, broader meaning of the disputed limitation that we find to be strongly supported by the claim language itself and the specification.

Thus, we find that the Board’s claim construction is erroneous. The proper construction of “data that functions to

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identify a controllable function of the controllable appliance,” as it appears in claim 1, is “data that can be used in connection with other information, to identify a controllable function of the controllable appliance.” In view of the Board’s incorrect claim construction, we vacate the Board’s final written decision holding that claims 1-9 of the ’486 patent are not unpatentable as obvious. We remand for the Board to re-evaluate the obviousness issue applying the claim construction we have set out above.

#### IV

We have considered UEI’s remaining arguments and find them unpersuasive. For the foregoing reasons, we vacate the Board’s final written decision and remand for the Board to determine whether the claims of the ’486 patent are obvious under the correct claim construction.

#### **VACATED AND REMANDED**

#### **COSTS**

Costs to Appellant.