

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

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

v.

**INTERNATIONAL TRADE COMMISSION,**  
*Appellee*

**UNIVERSAL ELECTRONICS, INC.,**  
*Intervenor*

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2022-1386

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Appeal from the United States International Trade  
Commission in Investigation No. 337-TA-1200.

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Decided: January 19, 2024

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Before DYK, HUGHES, and STOLL, *Circuit Judges*.

HUGHES, *Circuit Judge*.

Appellant Roku, Inc. appeals a final determination from the International Trade Commission, finding that (1) Intervenor Universal Electronics, Inc. had ownership rights to assert U.S. Patent No. 10,593,196 in the investigation; (2) Universal satisfied the economic prong of the domestic industry requirement under subparagraph (a)(3)(C) of 19 U.S.C. § 1337 (Section 337); and (3) Roku failed to present clear and convincing evidence that the '196 patent was obvious over the prior art. Because the Commission did not err in making any of these findings, we affirm.

I

A

Different television and video devices (such as smart TVs and DVD or Blu-ray players) use different communication protocols. There are two broad categories of communication protocols: wired communication protocols, such as HDMI connections; and wireless communication protocols, such as Wi-Fi or Bluetooth connections. Many of these communication protocols are incompatible with each other, but consumers might have multiple devices they want to use together, such as a wireless smart TV connected to a DVD player. The '196 patent purports to address this incompatibility with a “universal control

engine,” referred to in the claims as a “first media device,” that can connect to and scan various target devices (called “second media devices” in the patent) to determine which kind of communication protocols they use. The first media device essentially translates between the different types of devices. Figure 2 of the ’196 patent shows how a “first media device” can help connect multiple other types of devices:

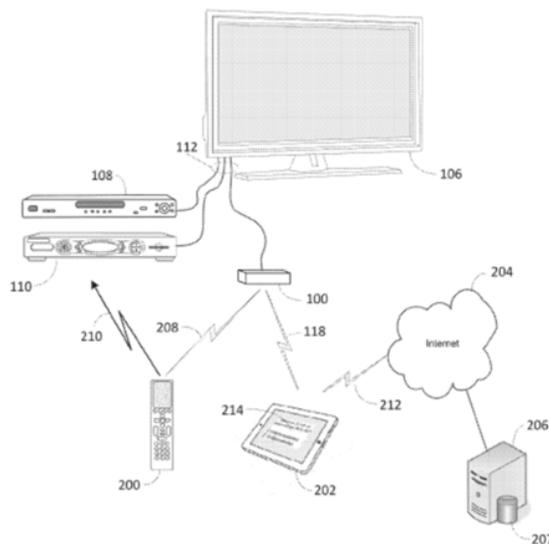


Figure 2

The first media device (labeled “100” in Figure 2) is able to receive wireless signals from either a remote control (200) or an app on a tablet computer (202). The first media device then issues commands, using either wired or infrared (IR) signals, to various controllable appliances, such as a television (106), a digital video recorder (110), or a DVD player (108).

Representative claim 1 is as follows:

1. [p] A first media device, comprising:
  - [a] a processing device;
  - [b] a high-definition multimedia interface communications port, coupled to the processing device, for communicatively connecting the first media device to a second media device;
  - [c] a transmitter, coupled to the processing device, for communicatively coupling the first media device to a remote control device; and
  - [d] a memory device, coupled to the processing device, having stored thereon processor executable instruction;
  - [e] wherein the instructions, when executed by the processing device,
    - [i] cause the first media device to be configured to transmit a first command directly to the second media device, via use of the high-definition multimedia communications port, to control an operational function of the second media device when a first data provided to the first media device indicates that the second media device will be responsive to the first command, and
    - [ii] cause the first media device to be configured to transmit a second data to a remote control device, via use of the transmitter, for use in configuring the remote control device to transmit a second command directly to the second media device, via use of a

communicative connection between the remote control device and the second media device, to control the operational function of the second media device when the first data provided to the first media device indicates that the second media device will be unresponsive to the first command.

'196 patent, cl. 1 (annotated by the parties).

## B

Universal Electronics, Inc. owns the '196 patent. Universal developed a set of technologies called "QuickSet," which is incorporated into multiple smart TVs. Universal relied on QuickSet to satisfy the economic prong of the domestic industry requirement<sup>1</sup> in this investigation and claimed that QuickSet practices the teachings of the '196 patent.

Roku creates various TV streaming technologies, such as the Roku streaming channel and the Roku stick. Roku also works with third parties to create Roku-branded TVs and licenses its operating system to other parties.

Universal filed a complaint with the International Trade Commission against Roku for importing certain TV products that infringe the '196 patent. The Commission instituted an investigation, and the administrative law judge

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<sup>1</sup> For a party to file a complaint under Section 337, they must show that they have an economic domestic industry in the United States, as laid out in 19 U.S.C. § 1337(a)(3)(A)–(C). Parties need only satisfy one of paragraphs (A) through (C). As discussed *infra*, Universal claimed that it satisfied subparagraph (a)(3)(C) based on its substantial investment in engineering and research and development (R&D) related to QuickSet in the United States.

found that Roku violated Section 337 by importing infringing articles. The Commission affirmed the administrative judge's finding and found in relevant part that (1) Universal had ownership rights to assert the '196 patent; (2) Universal satisfied the economic prong of the domestic industry requirement; and (3) the asserted claims were not invalid as obvious.

1

Earlier in the investigation, Roku filed a motion for summary determination that Universal lacked standing to assert the '196 patent because, at the time Universal filed its complaint, it did not own all rights to the '196 patent. Roku argued that Universal filed a petition for correction of inventorship to add one of its employees as an inventor to the patent *after* it filed its complaint with the Commission and that the agreements between this employee (Mr. Barnett) and Universal did not constitute an assignment of rights.

Initially, the administrative judge granted Roku's motion, finding that a 2004 agreement between Mr. Barnett and Universal was a "mere promise to assign rights in the future, not an immediate transfer of expectant rights." J.A. 26177 (quoting *Abraxis Bioscience, Inc. v. Navinta LLC*, 625 F.3d 1359, 1365 (Fed. Cir. 2010)). Thus, "the 2004 Barnett Agreement did not automatically assign to [Universal] any of Mr. Barnett's rights to the Provisional Applications or the '196 patent that eventually issued from the priority chain." J.A. 26177. The Commission reversed, finding instead that in a separate 2012 agreement, Mr. Barnett assigned all his rights to a series of provisional applications, including the one to which the '196 patent claims priority. The Commission also found that Mr. Barnett did not contribute any new or inventive matter to the '196 patent after filing the provisional applications. Based on those two facts, the Commission found that the 2012 agreement constituted a "present conveyance" of Mr. Barnett's rights in

the '196 patent, and thus Universal could assert the '196 patent. From this, the Commission found that the issue involving the 2004 agreement was moot.

## 2

The Commission found that Universal satisfied the economic prong of the domestic industry requirement by proving a substantial investment in engineering and research and development to exploit the '196 patent pursuant to subparagraph (a)(3)(C) of Section 337. Subparagraph (a)(3) of Section 337 requires a party filing suit with the Commission to possess a domestic industry in the United States, which can be satisfied by showing “substantial investment in [a patent’s] exploitation, including engineering, research and development, or licensing.” 19 U.S.C. § 1337(a)(3)(C). Specifically, the Commission found that Universal had made substantial investments in domestic engineering and R&D related to the QuickSet platform. The Commission also found that Universal’s investments in domestic R&D accounted for a substantial portion of its total investments in engineering and R&D. The Commission also found that Universal demonstrated a nexus between its engineering and R&D investments, the '196 patent, and the Samsung TVs that constituted Universal’s domestic industry products. Accordingly, the Commission found that Universal’s investments constituted exploitation of the asserted patent as required for investments under subparagraph (a)(3)(C).

## 3

The administrative judge initially found that Roku made a “marginal prima facie case” that claim 1 of the '196 patent was obvious over two prior art references, Chardon<sup>2</sup>

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<sup>2</sup> U.S. Patent Pub. No. 2012/0249890, which discloses a multi-media gateway, such as a set-top box, that

and Mishra.<sup>3</sup> J.A. 169–71. The parties did not dispute that Chardon disclosed all limitations of claim 1 other than 1[e][ii]. The administrative judge found that Mishra disclosed limitation 1[e][ii], which requires the “first media device” to transmit a signal to configure the remote control device to directly control a target device via IR or other wireless pathway when that device is unresponsive to an HDMI signal. However, the administrative judge said that “a certain amount of cherry-picking is required” to find all claim limitations disclosed in the combination of Chardon and Mishra and that Roku’s case was at best “marginal.” J.A. 167. Furthermore, the administrative judge found that Universal’s evidence of secondary considerations, which showed that QuickSet satisfied a long-felt but unmet need, outweighed Roku’s obviousness case.

The Commission affirmed this finding and modified the administrative judge’s other findings. The Commission found that the combination of Chardon and Mishra was not even “marginal” and simply did not disclose a system that automatically configures two different control devices to transmit commands over different pathways. The Commission also found that Roku failed to present clear and convincing evidence of a motivation to combine. Thereafter, the Commission affirmed the administrative judge’s finding that the asserted claims were non-obvious.

Roku now appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(6).

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acts as a “messenger” of sorts between a remote control and an “HDMI appliance” (such as a TV); the remote control does not directly communicate with the HDMI appliance.

<sup>3</sup> U.S. Patent Pub. No. 2001/0005197, which discloses communication pathways for telephones, and discloses a method for answering a telephone call remotely using a remote control unit that can also control a VCR.

## II

To bring a complaint before the International Trade Commission, “at least one complainant [must be] the owner or exclusive licensee of the subject intellectual property.” 19 C.F.R. § 210.12(a)(7); *see also IpVenture, Inc. v. ProStar Comput., Inc.*, 503 F.3d 1324, 1325 (Fed. Cir. 2007). Interpretation of an agreement for patent ownership is a legal question of contract interpretation, reviewed de novo. *See Omni MedSci, Inc. v. Apple Inc.*, 7 F.4th 1148, 1151–52 (Fed. Cir. 2021). This Court reviews for substantial evidence underlying factual determinations upon which a conclusion of standing is based. *SiRF Tech., Inc. v. ITC*, 601 F.3d 1319, 1325 (Fed. Cir. 2010); *see also Finnigan Corp. v. ITC*, 180 F.3d 1354, 1361–62 (Fed. Cir. 1999). Whether a complainant has satisfied the domestic industry requirement generally involves mixed questions of law and fact, reviewed de novo and for substantial evidence, respectively. *Motorola Mobility, LLC v. ITC*, 737 F.3d 1345, 1348 (Fed. Cir. 2013).

Obviousness is a legal question based on underlying fact findings. *Purdue Pharma L.P. v. Epic Pharma, LLC*, 811 F.3d 1345, 1351 (Fed. Cir. 2016). This Court reviews legal determinations de novo and underlying factual determinations for substantial evidence. *Rambus Inc. v. Rea*, 731 F.3d 1248, 1251 (Fed. Cir. 2013).

## III

Roku challenges three aspects of the Commission’s final determination: (1) the Commission’s determination that Universal had ownership rights to assert the ’196 patent in this investigation; (2) the Commission’s determination that Universal’s QuickSet technology satisfied the economic prong of the domestic industry requirement; and (3) the Commission’s determination that Roku failed to establish that claim 1 of the ’196 patent is obvious over the combination of Chardon and Mishra. We address each argument in turn.

## A

Roku contends that Universal did not have ownership rights to assert the '196 patent in this investigation.<sup>4</sup> Roku argues that the Commission erred in finding that Universal had ownership rights based on the 2004 agreement Mr. Barnett signed because that agreement did not constitute a *present* conveyance of his intellectual property rights—it only said that inventions created by Mr. Barnett “shall be” the property of Universal. Roku argues that the 2004 agreement was merely a promise to assign his rights in the future, not an actual conveyance of those rights.

We are not persuaded. Roku disregards the actual basis of the Commission’s determination, which was a separate 2012 agreement that constituted a present conveyance of Mr. Barnett’s rights in the provisional application associated with the '196 patent—the Commission’s decision did not rely on the 2004 agreement Roku references. Whether the agreement includes an automatic assignment or is merely a promise to assign depends on the contract language. *See Abraxis*, 625 F.3d at 1364. The language of each assignment states that Mr. Barnett “hereby sell[s] and assign[s] . . . [his] entire right, title, and interest in and to the invention,” including “all divisions and continuations thereof, including the subject-matter of any and all claims which may be obtained in every such patent.” J.A. 23339–42. On its face, the agreement language constitutes a present conveyance. *See FilmTec Corp. v. Allied-Signal Inc.*, 939 F.2d 1568, 1573 (Fed. Cir. 1991) (explaining that an agreement to “hereby grant” title to the patent “expressly granted . . . rights in any future invention”);

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<sup>4</sup> Throughout its briefs, Roku refers to this argument as a “standing” challenge. We agree with the Commission that “standing” is not the right term. Rather, Roku is actually challenging whether Universal had rights to the '196 patent when it filed its complaint against Roku.

*Speedplay, Inc. v. Bebop, Inc.*, 211 F.3d 1245, 1253 (Fed. Cir. 2000) (finding that an agreement that “hereby conveys, transfers and assigns . . . all right, title and interest in and to Inventions” operated as an automatic assignment). Thus, we agree with the Commission that “Mr. Barnett assigned his entire rights to the invention . . . through the 2012 Barnett Agreements.” J.A. 26186. Accordingly, we affirm.

## B

Next, Roku argues that the Commission erred in determining that Universal had satisfied the economic prong of the domestic industry requirement because it did not require Universal to allocate its domestic industry expenses to a specific domestic industry product. The administrative judge found, and the Commission affirmed, that “because QuickSet involves software and ‘software updates’ that result in practice of the asserted claims when implemented on the Samsung DI products,” Universal’s asserted expenditures are attributable to its domestic investments in R&D and engineering. J.A. 190. Furthermore, the administrative judge found, and the Commission affirmed, that “[Universal’s] investments go directly to the functionality necessary to practice many claimed elements of” the ’196 patent. J.A. 189. Both findings are supported by substantial evidence, such as data regarding Universal’s specific domestic investments in QuickSet and the amount of Universal’s domestic R&D investments relative to its total R&D expenditures.<sup>5</sup>

Roku instead focuses on Universal’s investments in certain smart TVs, rather than the QuickSet technology

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<sup>5</sup> The specific amounts and percentages of these investments have been designated confidential business information subject to a protective order, and as such, are not recited in this opinion.

that is installed on those TVs. But that is not the appropriate inquiry. Our precedent does not require expenditures in whole products themselves, but rather, “sufficiently substantial investment in the exploitation of the intellectual property.” *InterDigital Commc’ns, LLC v. ITC*, 707 F.3d 1295, 1303–04 (Fed. Cir. 2013). In other words, a complainant can satisfy the economic prong of the domestic industry requirement based on expenditures related to a subset of a product, if the patent(s) at issue only involve that subset. Here, there is no dispute that the “intellectual property” at issue is practiced by QuickSet and the related QuickSet technologies, a subset of the entire television. Roku does not dispute that QuickSet embodies the teachings of the ’196 patent, nor does Roku explain why Universal’s domestic investments into QuickSet are not “substantial.” Accordingly, we affirm the Commission’s determination that Universal has satisfied the economic prong of the domestic industry requirement in subparagraph (a)(3)(C) of Section 337.

### C

Roku’s final argument on appeal is that the Commission erred in finding that it failed to prove that the combination of Chardon and Mishra discloses limitation 1[e] of the ’196 patent, and also erred by accepting Universal’s evidence of secondary considerations of non-obviousness. But Roku does not directly challenge the Commission’s actual findings. For example, the Commission noted that limitation 1[e] allows a first media device to choose between two different control devices, depending on whether the second media device is responsive to commands from the first media device. But the Commission determined that neither Chardon nor Mishra—or even the combination of both—allow for a choice between different second media devices, and cited to several portions of the references in support of this finding.

Regarding secondary considerations, Roku's only argument is that the Commission erred in finding a nexus between the secondary considerations of non-obviousness because some of the news articles Universal presented discuss features in addition to QuickSet. But that argument is meritless. Roku does not dispute that the Commission's determination regarding secondary considerations of non-obviousness is supported by substantial evidence, nor does Roku dispute that QuickSet is discussed in the references the Commission relied on.

Because Roku does not directly address or dispute any of the Commission's findings on obviousness, we affirm.

#### IV

We have considered the rest of Roku's arguments and find them unpersuasive. We therefore affirm the Commission's final determinations that (1) Universal had ownership rights in the '196 patent and had the right to assert it in this investigation; (2) Universal satisfied the economic prong of the domestic industry requirement under subparagraph (a)(3)(C) of Section 337; and (3) Roku failed to establish a prima facie case that the challenged claims were unpatentable as obvious.

**AFFIRMED**