

NOTE: This disposition is nonprecedential.

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

---

**UNIVERSAL ELECTRONICS, INC.,**  
*Appellant*

v.

**ROKU, INC.,**  
*Appellee*

---

2021-1992, 2021-1993, 2021-1994

---

Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2019-01612, IPR2019-01613, IPR2019-01614.

---

Decided: August 18, 2023

---

MICHAEL ANTHONY NICODEMA, Greenberg Traurig LLP, West Palm Beach, FL, argued for appellant. Also represented by BENJAMIN GILFORD, JAMES J. LUKAS, JR., Chicago, IL.

JON WRIGHT, Sterne Kessler Goldstein & Fox, PLLC, Washington, DC, argued for appellee. Also represented by RICHARD CRUDO, LESTIN KENTON; JONATHAN DANIEL BAKER, Dickinson Wright PLLC, Mountain View, CA; MICHAEL DAVID SAUNDERS, Austin, TX.

---

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

NEWMAN, *Circuit Judge*.

This is a consolidated appeal of three *Inter Partes* Review (“IPR”) petitions filed by Roku, Inc., for three patents derived from the same parent application and owned by Universal Electronics, Inc. (“UEI”). The Patent Trial and Appeal Board (“Board”) held that claims 1–4, 6, 8, 9, and 22–25 of U.S. Patent No. 7,589,642 (“the ’642 patent”); claims 2–5, 7–13, and 15 of U.S. Patent No. 8,004,389 (“the ’389 patent”); and claims 1–5 of U.S. Patent No. 9,911,325 (“the ’325 patent”) are unpatentable on the ground of obviousness.<sup>1</sup> The Board upheld challenged claim 14 of the ’389 and claim 7 of the ’325 patent; Roku does not cross-appeal those rulings.

For the reasons we discuss, we affirm the Board’s decisions in all three IPRs.

## BACKGROUND

### The Patented Inventions

The three UEI patents are entitled “Relaying Key Code Signals Through a Remote Control Device,” and state that they relate “generally to remote control devices and, more specifically, to relaying key code signals through a remote control device to operate an electronic consumer device . . .

---

<sup>1</sup> *Roku, Inc. v. Universal Elecs., Inc.*, No. IPR2019-01612, 2021 WL 1192127 (P.T.A.B. Mar. 29, 2021); No. IPR2019-01613, 2021 WL 1192128 (P.T.A.B. Mar. 29, 2021); No. IPR2019-01614, 2021 WL 1395255 (P.T.A.B. Apr. 13, 2021). The Board issued analogous opinions for all three reviews. Citations to “Board Op.” are to IPR2019-01612 unless otherwise noted.

such as televisions, stereo radios, digital video disk players, video cassette recorders, set-top cable television boxes and set-top satellite boxes.” ’642 patent, col. 1, ll. 6–16.<sup>2</sup>

The patents discuss problems accompanying the provision and use of electronic remote control technology:

A remote control device typically controls a selected electronic consumer device by transmitting infrared key code signals to the selected electronic consumer device. The infrared signals contain key codes of a codeset associated with the selected electronic consumer device. Each key code corresponds to a function of the selected electronic device, such as power on, power off, volume up, volume down, play, stop, select, channel up, channel down, etc. In order to avoid the situation where a remote control device unintentionally operates an electronic consumer device that is associated with a different remote control device, manufacturers sometimes use distinct codesets for the communication between various electronic consumer devices and their associated remote control devices.

*Id.*, col. 1, ll. 21–34. The patents’ written descriptions elaborate on these problems and describe a method to relay a key code through a “remote control device to control a selected one of multiple different electronic consumer devices without requiring the codeset associated with the selected electronic consumer device to be stored on the remote control device.” *Id.*, col. 1, ll. 51–55.

The representative claim for each patent is as follows:

---

<sup>2</sup> The ’325 patent is a continuation of the ’389 patent, which is a continuation of the ’642 patent. The specifications are the same. Unless otherwise noted the citations are to the ’642 patent.

[’642 patent] Claim 1. A method comprising:

- (a) receiving a keystroke indicator signal from a remote control device, wherein the keystroke indicator signal indicates a key on said remote control device that a user has selected;
- (b) generating a key code within a key code generator device using the keystroke indicator signal;
- (c) modulating said key code onto a carrier signal, thereby generating a key code signal; and
- (d) transmitting said key code signal from said key code generator device to said remote control device.

[’389 patent] Claim 2. A method comprising:

- (a) receiving a keystroke indicator signal from a remote control device, wherein the keystroke indicator signal indicates a key on said remote control device that a user has selected;
- (b) generating a key code within a key code generator device using the keystroke indicator signal, wherein said key code is part of a codeset that controls an electronic consumer device;
- (c) modulating said key code onto a carrier signal, thereby generating a key code signal;
- (d) transmitting said key code signal from said key code generator device; and
- (e) identifying said codeset using input from a user of said remote control device, wherein said codeset is identified when said user

stops pressing a key on said remote control device.

[’325 patent] Claim 1. A first device for transmitting a command to control a functional operation of a second device, the first device comprising:

a receiver;

a transmitter;

a processing device coupled to the receiver and the transmitter; and

a memory storing instructions executable by the processing device, the instructions causing the processing device to:

generate a key code using a keystroke indicator received from a third device in communication with first device via use of the receiver, the keystroke indicator having data that indicates an input element of the third device that has been activated;

format the key code for transmission to the second device; and

transmit the formatted key code to the second device in a key code signal via use of the transmitter;

wherein the generated key code comprises a one of a plurality of key code data stored in a codeset, wherein the one of the plurality of key code data is selected from the codeset as a function of the keystroke indicator received from the third device, wherein each of the plurality of key code data stored in the codeset comprises a series of digital ones and/or digital zeros, and wherein the codeset further comprises time information

# 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.