

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROKU, INC.,
Petitioner,

v.

UNIVERSAL ELECTRONICS, INC.,
Patent Owner.

Case No. IPR2020-01012
U.S. Patent 7,589,642

**SECOND PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 7,589,642**

Mail Stop "PATENT BOARD"
Patent Trial and Appeal Board
U.S. Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Grounds for the Unpatentability of the '642 patent.....	2
III.	Overview of the '642 patent	3
	A. Embodiment 1 – Transmitting a Key Code from a Key Code Generator to a Remote Control Device	5
	B. Embodiment 2 – Transmitting a Key Code from a Key Code Generator to an Electronic Consumer Device	8
	C. The Examiner Provided No Rationale for Allowance During Prosecution of the '642 Patent	8
	D. The Claims Challenged in this Petition Were Never Considered by the Board	11
IV.	Level of ordinary skill in the art	11
V.	Claim Construction	12
	A. “Key code” and “Keystroke indicator signal”	12
	B. “Key code signal”	13
	C. “Key code generator device”.....	13
	D. “Means for receiving a key code from said RF receiver and for sending said key code to said IR transmitter... wherein said means is a microcontroller” (Claim 19).....	15
VI.	GROUND 1 (CONTINUED): Claims 1, 6, 7, 19, and 20 of the '642 Patent are Unpatentable under 35 U.S.C. § 103 Over Mishra In view of Dubil.....	16
	A. Overview of Mishra	16
	B. Overview of Dubil	18
	C. Independent Claim 1	20
	1. [1.P]: “A method comprising:”	20
	2. [1.1]: “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;”	21

*Petition for Inter Partes Review of
U.S. Patent No. 7,589,642*

3.	[1.2] “generating a key code within a key code generator device using the keystroke indicator signal;”	22
4.	[1.3] “modulating said key code onto a carrier signal, thereby generating a key code signal; and”	23
5.	[1.4] “transmitting said key code signal from said key code generator device to said remote control device.”	25
D.	Claim 6	26
1.	[6.P]: “The method of claim 1, wherein said carrier signal is in a radio frequency band, wherein said key code signal is received by said remote control device, and wherein said method further comprises:”	26
2.	[6.1] “modulating said key code onto a second carrier signal, thereby generating a second key code signal, said modulating being performed on said remote control device wherein said second carrier signal is in an infrared frequency band; and”	27
3.	[6.2]: “transmitting said second key code signal from said remote control device to an electronic consumer device.”	28
E.	Claim 7: “The method of claim 6, further comprising: (g) pressing a power-on key of said remote control device causing said remote control device to transmit said keystroke indicator signal that is received in (a), wherein the pressing in (g) causes said electronic consumer device to turn on.”	29
F.	Independent Claim 19	31
1.	[19.P]: “A remote control device, comprising:”	31
2.	[19.1]: “a keypad;”	32
3.	[19.2]: “an RF receiver;”	34
4.	[19.3]: “an IR transmitter; and”	36
5.	[19.4]: “means for receiving a key code from said RF receiver and for sending said key code to said IR transmitter such that said key code is modulated onto an IR carrier signal, said IR carrier signal with said key code modulated thereon being transmitted from said remote control device by said IR transmitter, wherein said means is a microcontroller.”	38
G.	Independent Claim 20	40
VII.	GROUND 2 (CONTINUED): Claims 2 and 5 of the ’642 Patent are Unpatentable under 35 U.S.C. § 103 Over Rye In view of Dubil	43

*Petition for Inter Partes Review of
U.S. Patent No. 7,589,642*

A.	Overview of Rye.....	43
A.	Independent Claim 2.....	45
1.	[2.P] “A method comprising:”	45
2.	[2.1] “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;”	45
3.	[2.2] “generating a key code within a key code generator device using the keystroke indicator signal;”.....	47
4.	[2.3] “modulating said key code onto a carrier signal, thereby generating a key code signal; and”	48
5.	[2.4] “transmitting said key code signal from said key code generator device to an electronic consumer device.”	50
B.	Claim 5: “The method of claim 2, further comprising: (e) pressing a power-on key of said remote control device causing said remote control device to transmit said keystroke indicator signal that is received in (a), wherein said key code signal transmitted in (d) is received onto said electronic consumer device, and wherein said pressing in (e) causes said electronic consumer device to turn on.”.....	51
VIII.	Petitioner is unaware of any secondary considerations of non-obviousness.....	51
IX.	Conclusion.....	52
X.	Standing (37 C.F.R. § 42.104(a))	52
XI.	Mandatory Notices (37 C.F.R. § 42.8(a)(1)).....	52
A.	Real Party In Interest (37 C.F.R. § 42.8(b)(1)).....	52
B.	Related Matters (37 C.F.R. § 42.8(b)(2))	52
C.	Lead and Back-up Counsel (37 C.F.R. § 42.8(b)(3)).....	54
D.	Service Information (37 C.F.R. § 42.8(b)(4)).....	54

*Petition for Inter Partes Review of
U.S. Patent No. 7,589,642*

PETITIONER'S EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 7,589,642 to Mui (“’642 Patent”)
1002	Prosecution History of U.S. Patent No. 7,589,642 (“Prosecution History”)
1003	Declaration of Dr. Samuel Russ in Support of Petition for <i>Inter Partes</i> Review of U.S. Patent No. 7,589,642
1004	Curriculum Vitae of Dr. Samuel Russ
1005	U.S. Patent Publication No. 2001/0005197 to Mishra <i>et al.</i> (“Mishra”)
1006	U.S. Patent No. 8,132,105 to Dubil <i>et al.</i> (“Dubil”)
1007	U.S. Patent Publication No. 2004/0080428 to Rye <i>et al.</i> (“Rye”)
1008	U.S. Patent No. 7,562,128 to Caris <i>et al.</i> (“Caris”)
1009	U.S. Patent No. 4,426,662 to Skerlos <i>et al.</i> (“Skerlos”)
1010	Markman Order SACV 18-01580 JVS (Dated August 8, 2019)
1011	“Device Specification for Infrared Detecting unit for Remote Control GP1UV70QS series,” Sharp Corporation Electronic Components Group, Opto-Electronic Devices Division (Dated December 27, 2002) (“GP1UV70”)
1012	“Data Formats for IR Remote Control,” Vishay Semiconductors (Dated August 27, 2003) (“Vishay”)
1013	“User Interface – Infrared Learner (Remote Control) AN2092” Project Guide, Cypress Semiconductor Corporation (Dated November 11, 2002) (“Cypress”)
1014	“VCR Commander Service User’s Guide,” Scientific-Atlanta, Inc., (Dated September 2000) (“VCR Commander”)
1015	U.S. Patent No. 5,469,152 to Yamamoto <i>et al.</i> (“Yamamoto”)
1016	“Infrared Remote Control Transmitter RC5 Product Specification,” Philips Semiconductors (Dated June 15, 1999)
1017	“AT2400 AllTouch Remote Control User’s Guide,” Scientific-Atlanta, Inc. (Dated February 2002)

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.