## UNITED STATES PATENT AND TRADEMARK OFFICE

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## BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROKU, INC., Petitioner,

v.

UNIVERSAL ELECTRONICS INC., Patent Owner.

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Case IPR2019-01614 U.S. Patent 9,911,325

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DECLARATION OF DR. MICHAEL D. SPRENGER IN SUPPORT OF PATENT OWNER'S RESPONSE TO PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 9,911,325



## **TABLE OF CONTENTS**

I.	INTRODUCTION	1
II.	QUALIFICATIONS	2
III.	MATERIALS CONSIDERED	9
IV.	LEGAL PRINCIPLES	10
A	Priority	10
В.	Anticipation	11
C.	Obviousness	12
D	Claim Construction	13
V.	PERSON OF ORDINARY SKILL IN THE ART	13
VI.	BACKGROUND	15
A	Technology Background	15
	1. Remote Control of Electronic Devices	15
	2. Universal Remote Controls	22
В.	U.S. Patent No. 9,911,325	23
C.	Prosecution History	28
	1. Applicant distinguished translating or converting a control signal from "receiving keystroke indicator signal" and then "generating a key code within a key code generator device using the keystroke indicator signal"	r
	2. Applicant distinguished "a key code signal" from "a codeset"	
	3. Appeal Board rejected Examiner's argument that prior art disclosed modulating a code onto a carrier signal	key
D	Prior Denial of Institution for Inter Partes Review of '642 Patent (IPR2014-01082)	33
VII.	Decision to Institute the Present Inter Partes Review	34
VIII.	ASSERTED PRIOR ART REFERENCES	35
A	U.S. Patent Application Publication No. 2004/0080428 ("Rye")	35
В.	U.S. Patent No. 4,426,662 ("Skerlos")	36
C.	U.S. Patent No. 7,562,128 ("Caris")	37
D	U.S. Patent No. 8,132,105 ("Dubil")	38
IX.	OPINIONS	40
A	Terms for Claim Construction.	40
	1. "key code"	40
	2. "keystroke indicator"	41



## Case IPR2019-01614 U.S. Patent 9,911,325

	3.	"key code signal"
	4.	"generate a key code using the keystroke indicator signal"
В.	C	Ground 1: Rye and Skerlos
	1.	A POSITA would not have combined Rye with Dubil
	2.	Rye and Skerlos do not render obvious Claim 1
	a. and t	Rye and Skerlos do not disclose [1.3]: "a processing device coupled to the receiver the transmitter"
	b. the p	Rye and Skerlos do not disclose [1.4]: "a memory storing instructions executable by processing device, the instructions causing the processing device to"
	recei	Rye and Skerlos do not disclose [1.4.1]: "generate a key code using a keystroke cator received from a third device in communication with first device via use of the ever, the keystroke indicator having data that indicates an input element of the third ce that has been activated"
	d.	Rye and Skerlos do not disclose [1.4.2]: "format the key code for transmission to the nd device"
	e. seco	Rye and Skerlos do not disclose [1.4.3]: "transmit the formatted key code to the nd device in a key code signal via the use of a transmitter"
	key of	Rye and Skerlos do not disclose [1.4.4]: "wherein the generated key code comprises a of a plurality of key code data stored in a codeset, wherein the one of the plurality of code data is selected from the codeset as a function of the keystroke indicator received the third device, wherein each of the plurality of key code data stored in the codeset prises a series of digital ones and/or digital zeros"
	the p	Rye and Skerlos do not disclose [1.4.5]: "wherein the codeset further comprises time mation that describes how a digital one and/or a digital zero within the selected one of durality of key code data is to be represented in the key code signal to be transmitted to econd device"
	3. 1, w	Rye and Skerlos do not render obvious Claim 2: "The first device as recited in claim herein the receiver comprises an RF receiver"
	4.	Rye and Skerlos do not render obvious Claim 3: "The first device as recited in claim herein the transmitter comprises an IR transmitter"
	-	Rye and Skerlos do not render obvious Claim 5: "The first device as recited in claim herein the formatted key code is transmitted from the first device to the second device wireless connection between the first device and the second device"
		Rye and Skerlos do not render obvious Claim 7: "The first device as recited in claim herein the generated key code controls at least one of a power on, power off, volume and volume down functional operation of the second device"
C.	C	Ground 2: Caris and Dubil
	1.	A POSITA would not have combined Caris with Dubil
	2.	Caris and Dubil do not render obvious Claim 1:



## Case IPR2019-01614 U.S. Patent 9,911,325

	a. Caris and Dubil do not disclose [1.3]: "a processing device coupled to the receiver and the transmitter"
	b. Caris and Duil do not disclose [1.4]: "a memory storing instructions executable by the processing device, the instructions causing the processing device to"
	c. Caris and Dubil do not disclose [1.4.1]: "generate a key code using the 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"
	d. Caris and Dubil do not disclose [1.4.2]: "format the key code for transmission to the second device"
	e. Caris and Dubil do not disclose [1.4.3]: "transmit the formatted key code to the second device in a key code signal via the use of a transmitter"
	f. Caris and Dubil do not disclose [1.4.4]: "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"
	g. Caris and Dubils do not disclose [1.4.5]: "wherein the codeset further comprises time information that describes how a digital one and/or a digital zero within the selected one of the plurality of key code data is to be represented in the key code signal to be transmitted to the second device"
	3. Caris and Dubil do not render obvious Claim 2: "The first device as recited in claim 1, wherein the receiver comprises an RF receiver"
	4. Caris and Dubil do not render obvious Claim 3: "The first device as recited in claim 1, wherein the transmitter comprises an IR transmitter"
	5. Caris and Dubil do not render obvious Claim 4: "The first device as recited in claim 1, wherein the formatted key code is transmitted from the first device to the second device via a wired connection between the first device and the second device"
	6. Caris and Dubil do not render obvious Claim 5: "The first device as recited in claim 1, wherein the formatted key code is transmitted from the first device to the second device via a wireless connection between the first device and the second device"
X.	CONCLUSION



I, Michael D. Sprenger, declare that:

## I. INTRODUCTION

- 1. I have been retained by Universal Electronics Inc., which I may refer to as either the "Patent Owner" or "UEI," for this *inter partes* review proceeding, which I may refer to as an "IPR." I understand that this IPR proceeding involves U.S. Patent No. 9,911,325, which I may refer to as "the '325 patent" for shorthand. I understand that the claims challenged in this IPR are Claims 1-5 and 7 of the '325 patent.
  - 2. I understand that the '325 patent is assigned to UEI.
- 3. I understand that in this proceeding Roku, Inc., which I may also refer to as the "Petitioner," filed a Petition for review of Claims 1-5 and 7 of the '325 patent.
- 4. I understand that the above claims are challenged on the following three grounds:

Claims Challenged	Basis	References
1-3, 5, 7	Obviousness	Ground 1: Rye, Skerlos
1-5	Obviousness	Ground 2: Caris, Dubil

5. I have been asked to provide my objective, independent analysis of the '325 patent in view of the asserted prior art references cited in the Petition and to provide my opinion regarding the allegations in the Petition, as well as the supporting opinions of Dr. Samuel H. Russ.



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