

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROKU, INC.
Petitioner

v.

UNIVERSAL ELECTRONICS INC.
Patent Owner

Case IPR No. IPR2019-01615
U.S. Patent 9,716,853

DECLARATION OF DR. SAMUEL H. RUSS

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A.	Ground 1: Claims 1, 3, 5, and 7 are Rendered Obvious by Chardon in view of HDMI and Stecyk	73
1.	Independent Claim 1	75
a)	“[1.P] A universal control engine, comprising:”	75
b)	“[1.1] a processing device; and a memory device having stored thereon instructions executable by the processing device, the instructions, when executed by the processing device, causing the universal control engine...”	77
c)	“[1.2] to respond to a detected presence of an intended target appliance within a logical topography of controllable appliances which includes the universal control engine”	79
d)	“[1.3] by using an identity associated with the intended target appliance to create a listing”	83
e)	“[1.4] comprised of at least a first communication method and a second communication method different than the first communication method for use in controlling each of at least a first functional operation and a second functional operation of the intended target appliance and”	92
f)	“[1.5] to respond to a received request from a controlling device intended to cause the intended target appliance to perform a one of the first and second functional operations”	95
g)	“[1.6] by causing a one of the first and second communication methods in the listing of communication methods that has been associated with	

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the requested one of the first and second functional operations to be used to transmit to the intended target appliance a command for controlling the requested one of the first and second functional operations of the intended target appliance.”97

2. Dependent Claim 3.....99

 a) “[3.P] The universal control engine as recited in claim 1, wherein the instructions cause the universal control engine to”99

 b) “[3.1] initiate a detection of the presence of the intended target appliance within the logical topography of controllable appliances.”100

3. Dependent Claim 5.....101

 a) “[5.P] The universal control engine as recited in claim 1, wherein the instruction [sic] cause the universal control engine to cause”101

 b) “[5.1] a prompt to be displayed in a display associated with the universal control engine in response to a detected presence of the intended target appliance within a logical topography of controllable appliances, the prompt requesting a user to provide data indicative of the identity associated with the intended target appliance.”101

4. Dependent Claim 7.....105

 a) “[7.P] The universal control engine as recited in claim 1, wherein the instructions cause the universal control engine to”105

 b) “[7.1] initiate an interrogation of the intended target appliance to determine which of a plurality of communication methods are supported by the appliance for use in receiving a command for controlling at least one of the first and second functional operations and using results obtained from the interrogation to create the listing.”105

IX. OTHER EVIDENCE RELEVANT TO OBVIOUSNESS.....107

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I, Samuel H. Russ, declare as follows:

I. INTRODUCTION

1. I have been asked by Roku, Inc. (“Roku”) to provide expert opinions in the above-captioned *Inter Partes* Review proceeding involving U.S. Patent No. 9,716,853 (“the ’853 patent”), which is entitled “System And Method For Optimized Appliance Control.”

2. I am being compensated by Roku on an hourly basis for the time I spend in connection with this proceeding. My compensation is not dependent in any way on the substance of my opinions or in the outcome of this proceeding.

II. QUALIFICATIONS

3. My qualifications for forming the opinions set forth in this declaration are summarized here and explained in more detail in my curriculum vitae, which is attached as Exhibit 1004. Exhibit 1004 also includes a list of my publications and the cases in which I have testified at deposition, hearing, or trial during the past four years.

4. I received a Bachelor’s degree in Electrical Engineering from the Georgia Institute of Technology (“Georgia Tech”) in 1986 and a Ph.D. in Electrical Engineering from Georgia Tech in 1991.

5. From 2007 to the present, I have been a member of the faculty of the University of South Alabama as an Assistant and Associate Professor in the

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