PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6617744

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BLACKFIRE RESEARCH CORPORATION	03/12/2021

RECEIVING PARTY DATA

Name:	ROKU, INC.
Street Address:	1155 COLEMAN AVENUE
City:	SAN JOSE
State/Country:	CALIFORNIA
Postal Code:	95110

PROPERTY NUMBERS Total: 77

Property Type	Number
Application Number:	60766573
Application Number:	11627957
Application Number:	14083426
Application Number:	14303502
Application Number:	14303527
Application Number:	14505411
Application Number:	15047548
Application Number:	15175026
Application Number:	15285489
Application Number:	15286516
Application Number:	15381092
Application Number:	15389438
Application Number:	15618541
Application Number:	60767555
Application Number:	11777935
Application Number:	61442574
Application Number:	13372516
Application Number:	61512924
Application Number:	13561029
Application Number:	13561030

PATENT REEL: 055695 FRAME: 0161

506570965

Property Type	Number
Application Number:	13561031
Application Number:	14487031
Application Number:	14487045
Application Number:	14754644
Application Number:	15069967
Application Number:	15281009
Application Number:	61727624
Application Number:	61728212
Application Number:	14084585
Application Number:	14489474
Application Number:	14834402
Application Number:	62015374
Application Number:	14746806
Application Number:	62117899
Application Number:	62140416
Application Number:	15294263
Application Number:	62140427
Application Number:	15085975
Application Number:	15294596
Application Number:	62157474
Application Number:	15147626
Application Number:	15358103
Application Number:	62157473
Application Number:	15147584
Application Number:	62171217
Application Number:	62243604
Application Number:	15260307
Application Number:	62328562
Application Number:	15178544
Application Number:	15196022
Application Number:	15379441
Application Number:	15847910
Application Number:	62332476
Application Number:	62367930
Application Number:	15336745
Application Number:	15599330
Application Number:	15616650
Application Number:	62483286

Property Type	Number
Application Number:	15284518
Application Number:	15599454
Application Number:	62503916
Application Number:	62442969
Application Number:	62449576
Application Number:	15436723
Application Number:	15232779
Application Number:	61833927
Application Number:	61833928
PCT Number:	US2007061229
PCT Number:	US2007073620
PCT Number:	US2013070634
PCT Number:	US2016018543
PCT Number:	US2016031144
PCT Number:	US2016057772
PCT Number:	US2017029977
PCT Number:	US2017044467
PCT Number:	US2017054937
PCT Number:	US2018012554

CORRESPONDENCE DATA

Fax Number: (202)371-2540

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 202-371-2600

Email: emiller@sternekessler.com

Correspondent Name: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Address Line 1: 1100 NEW YORK AVENUE N.W. Address Line 4: WASHINGTON, D.C. 20005

ATTORNEY DOCKET NUMBER:	3634.182DUE0
NAME OF SUBMITTER:	TODD M. HOPFINGER
SIGNATURE:	/Todd Hopfinger, Reg.# 72567/
DATE SIGNED:	03/23/2021

Total Attachments: 5

source=Assignment from Blackfire to Roku-S1#page1.tif source=Assignment from Blackfire to Roku-S1#page2.tif source=Assignment from Blackfire to Roku-S1#page3.tif source=Assignment from Blackfire to Roku-S1#page4.tif source=Assignment from Blackfire to Roku-S1#page5.tif

ASSIGNMENT

For valuable consideration, the receipt and sufficiency of which is hereby acknowledged, **Blackfire Research Corporation**, a corporation formed under the laws of the State of California, whose mailing address is 1820 Lyon Street, San Francisco, California 94115 (hereafter referred to as the Assignor), hereby sells and assigns to **Roku, Inc.**, a corporation formed under the laws of Delaware, whose mailing address is 1155 Coleman Avenue, San Jose, California 95110 (hereafter referred to as the Assignee), its entire right, title and interest for the United States of America (as defined in 35 U.S.C. § 100), and throughout the world, including the right to sue for past infringement and to collect for all past, present and future damages,

- (a) in each of the Patents and Patent Applications that are described in detail in Schedule A, annexed hereto and made a part hereof, and
- (b) in any and all applications that claim the benefit of the Patents and Patent Applications described in detail in Schedule A, including non-provisional applications, continuing (continuation, divisional, or continuation-in-part) applications, reissues, extensions, renewals, and reexaminations of such Patents and Patent Applications, to the full extent of the term or terms for which Letters Patents issue, and
- (c) in any and all inventions described in each of the Patents and Patent Applications that are described in detail in Schedule A, and in all forms of intellectual and industrial property protection derivable therefrom, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such Patents and Patent Applications, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor, and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The Assignor agrees to execute all papers necessary in connection with the applications and Letters Patents as above, and any non-provisional, continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The Assignor agrees to execute all papers necessary in connection with any judicial or administrative proceeding, including but not limited to an interference, derivation, post-grant proceeding, patent enforcement action (judicial or otherwise) related to the applications or Letters Patents or any non-provisional, continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application thereof and to cooperate with the Assignee at Assignee's expense in every reasonable way possible in obtaining evidence and going forward with such interference or patent enforcement act.

The Assignor agrees to perform all affirmative acts at Assignee's request and expense that may be necessary to obtain or ensure a grant of a valid patent to the Assignee.

The Assignor hereby represents that Assignor has full right and authority to convey the entire interest herein assigned, and that Assignor has not executed, and will not execute, any agreement in conflict therewith.

The Assignor hereby grants the patent practitioners associated with **CUSTOMER NUMBER 176536** the power to insert in this assignment, including the attached Schedule A, any further information regarding the patents and patent applications so identified in such Schedule A that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

The undersigned Assignor hereby represents that the Assignor understands that the patent practitioners associated with **CUSTOMER NUMBER 176536** are legal representatives of, and attorneys for, the Assignee, and are <u>NOT</u> the legal representatives of, and attorneys for, the Assignor.

SIGNED on behalf of the said ASSIGNOR,

BLACKFIRE RESEARCH CORPORATION

By:______ Name: Ravi Rajapakse

Title: CEO

Date: 3/12/2021

Page 2 of 5

SCHEDULE A

UNITED STATES PATENTS, UNITED STATES PATENT APPLICATIONS AND INTERNATIONAL APPLICATIONS THAT DESIGNATE THE UNITED STATES

Country	Application No.	Patent No.
United States	60/766,573	
United States	11/627,957	8,677,002
United States	14/083,426	8,762,580
United States	14/303,502	9,413,799
United States	14/303,527	9,407,670
United States	14/505,411	9,338,208
United States	15/047,548	9,843,489
United States	15/175,026	
United States	15/285,489	9,780,894
United States	15/286,516	
United States	15/381,092	9,973,290
United States	15/389,438	
United States	15/618,541	
United States	60/767,555	
United States	11/777,935	8,239,559
United States	61/442,574	
United States	13/372,516	9,414,105
United States	61/512,924	
United States	13/561,029	8,839,065
United States	13/561,030	8,837,488
United States	13/561,031	9,071,418
United States	14/487,031	9,756,127
United States	14/487,045	9,288,263
United States	14/754,644	9,479,584
United States	15/069,967	
United States	15/281,009	
United States	61/727,624	
United States	61/728,212	
United States	14/084,585	8,880,929
United States	14/489,474	9,118,678
United States	14/834,402	9,804,633
United States	62/015,374	
United States	14/746,806	
United States	62/117,899	
United States	62/140,416	
United States	15/294,263	
United States	62/140,427	
United States	15/085,975	
	Page 3 of 5	

United States	15/294,596	
United States	62/157,474	
United States	15/147,626	
United States	15/358,103	10,097,902
United States	62/157,473	
United States	15/147,584	
United States	62/171,217	
United States	62/243,604	
United States	15/260,307	9,686,123
United States	62/328,562	
United States	15/178,544	9,848,247
United States	15/196,022	10,055,187
United States	15/379,441	9,847,904
United States	15/847,910	
United States	62/332,476	
United States	62/367,930	
United States	15/336,745	9,699,684
United States	15/599,330	
United States	15/616,650	
United States	62/483,286	
United States	15/284,518	
United States	15/599,454	
United States	62/503,916	
United States	62/442,969	
United States	62/449,576	
United States	15/436,723	
United States	15/232,779	
United States	61/833,927	
United States	61/833,928	
PCT	PCT/US2007/061229	
PCT	PCT/US2007/073620	
PCT	PCT/US2013/070634	
PCT	PCT/US2016/018543	
PCT	PCT/US2016/031144	
PCT	PCT/US2016/057772	
PCT	PCT/US2017/029977	
PCT	PCT/US2017/044467	
PCT	PCT/US2017/054937	
PCT	PCT/US2018/012554	
PCT	PCT/US2018/030801	

INTERNATIONAL APPLICATIONS AND PATENTS

Country	Application No.	Patent No.	
Japan	2015-543100	6290915 B2	
India	5095/DELNP/2015		
EPC	07717473.8	1977331 B1	
EPC	13855347.4		
China P.R	201380069958.X		

Page 5 of 5