506268694 09/24/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 EPAS ID: PAT6315441 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DORIN GHEORGHE VIOREL	11/14/2017
JENNIFER ANDREOLI-FANG	11/20/2017
BELAL HAMZEH	11/14/2017
JOSH REDMORE	11/17/2017
CAREY SONSINO	11/17/2017

RECEIVING PARTY DATA

Name:	CABLE TELEVISION LABORATORIES, INC.
Street Address:	858 COAL CREEK CIRCLE
City:	LOUISVILLE
State/Country:	COLORADO
Postal Code:	80027

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16876176

CORRESPONDENCE DATA

Fax Number: (303)661-9199

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: 3036619100

Email: p.calderwood@cablelabs.com

Correspondent Name: CABLE TELEVISION LABORATORIES, INC.

Address Line 1: 858 COAL CREEK CIRCLE

Address Line 4: LOUISVILLE, COLORADO 80027

ATTORNEY DOCKET NUMBER: 60947CON1DIV1 NAME OF SUBMITTER: PAMELA CALDERWOOD SIGNATURE: /Pamela Calderwood/ **DATE SIGNED:** 09/24/2020

Total Attachments: 8

source=60947CONT1DIV1 (35930-167) Parent Assignment 21FEB2019#page1.tif

source=60947CONT1DIV1 (35930-167) Parent Assignment 21FEB2019#page2.tif
source=60947CONT1DIV1 (35930-167) Parent Assignment 21FEB2019#page3.tif
source=60947CONT1DIV1 (35930-167) Parent Assignment 21FEB2019#page4.tif
source=60947CONT1DIV1 (35930-167) Parent Assignment 21FEB2019#page5.tif
source=60947CONT1DIV1 (35930-167) Parent Assignment 21FEB2019#page6.tif
source=60947CONT1DIV1 (35930-167) Parent Assignment 21FEB2019#page7.tif
source=60947CONT1DIV1 (35930-167) Parent Assignment 21FEB2019#page8.tif

WORLDWIDE ASSIGNMENT

WHEREAS, I,

DORIN GHEORGHE VIOREL, a citizen of Canada, having a residence in Erie, Colorado

JENNIFER ANDREOLI-FANG, a citizen of the United States, having a residence in Boulder, Colorado

BELAL HAMZEH, a citizen of the United States, having a residence in Westminster, Colorado

JOSH REDMORE, a citizen of the United States, having a residence in Longmont, Colorado

CAREY SONSINO, a citizen of the United States, having a residence in Golden, Colorado

(hereinafter "ASSIGNORS"), have made an invention entitled "SYSTEMS AND METHODS FOR LTE-U DETECTION USING PHY LAYER PROCESSING" as set forth and described in U.S. Application No. 15/439,814, filed February 22, 2017; International Application No. 62/298,037, filed _____; United States Provisional Application No. 62/307,199, filed March 11, 2016; and

WHEREAS, CABLE TELEVISION LABORATORIES, INC (hereinafter "ASSIGNEE"), having its principal place of business at 858 COAL CREEK CIRCLE, LOUISVILLE, CO 80027, is desirous of acquiring the whole right, title and interest in and to said application for Letters Patent, and any continuations, divisions, extensions, substitutions, reissues and reexaminations thereof;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, BE IT KNOWN, that I, the said ASSIGNORS, for and in consideration of valuable considerations unto us moving from said ASSIGNEE, at or before the ensealing and delivery of these presents, the receipt and sufficiency of which is hereby acknowledged, have sold, assigned, transferred and conveyed and by these presents do sell, assign, transfer and convey, unto said ASSIGNEE, its successors and assigns, the entire right, title and interest in and to the said invention entitled "SYSTEMS AND METHODS FOR LTE-U DETECTION USING PHY LAYER PROCESSING" and any and all improvements thereto, and in and to said application and any division, continuation or continuation-in-part thereof, and in and to any Letters Patent of the United States which may be issued on any of said applications, and any reissues thereof, and in and to any and all applications for Letters Patent filed in foreign countries for said invention or improvements including all priority rights, and any and all Letters Patent which may be granted in foreign countries therefor, and in and to any other applications based in whole or in part on any of the

foregoing, TO HAVE AND TO HOLD THE SAME to the full end of the term or terms for which any and all said Letters Patent may be granted;

AND I, the said ASSIGNORS, do hereby authorize and request the Commissioner of Patents and Trademarks to issue the said Letters Patent of the United States to said ASSIGNEE, as the assignee of the entire right, title and interest in and to the same, for the sole use and benefit of said ASSIGNEE, its successors and assigns;

AND I, the said ASSIGNORS, for the considerations aforesaid, do hereby covenant and agree to and with said ASSIGNEE, its successors and assigns, that I have the full power to make this assignment, and that the rights assigned are not encumbered by any grant, license or right heretofore given, and that I, my executors or administrators, shall and will do all lawful acts and things and make, execute and deliver without further compensation, any and all other instruments in writing, further applications, papers, affidavits, powers of attorney, assignments, and other documents which, in the opinion of counsel for said ASSIGNEE, its successors and assigns, may be required or necessary more effectively to secure to and vest in said ASSIGNEE, its successors and assigns, the entire right, title and interest in and to said invention and improvements, applications, Letters Patent, rights, titles, benefits, privileges, and advantages hereby sold, assigned, transferred and conveyed, and that I will sign any applications for reissue which may be desired by the owner of the patent or patents which may be issued for the said invention or improvements.

AND I, the said **ASSIGNORS**, hereby authorize and request the attorneys of **ARMSTRONG TEASDALE LLP** to insert in the spaces provided above, the title of the invention, filing date, application number, and attorney's docket number of said application when known.

IN WITNESS WI	IEREOF, I, the said ASSIGNOR have executed this Assignment this <u>()</u> 2017.
	DORIN GHEÖRGHE VIOLREL
	Panel Celderon J
	Witness Signature
	<u>Panela Calderwood</u>
	Witness Name

HEREOF, I, the said ASSIGNOR have executed this Assignment the said ASSIGNOR have executed t
JENNIFER ANDREOLI-FANG
Danie Coldenson
Witness Signature
Witness Name

in withess where day of UC	Pr. 1, the said ASSIGNOR have executed this Assignment this
	BELALWAMZEH
	Vanile Caldering & Witness Signature Panela Caldering &

Witness Name

IN WITNESS WHEREOF, I, the sa	aid ASSIGNOR have executed this Assignment this
	17.
	and the second s
	JOSH REDMORE
	pang pangangan pangangan pangangan
	Janely Coldervord
	Witness Signature
	Panela Caldervood
	Witness Name

CAREY SONSINO

Witness Name