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PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4759986

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------------|----------------|
| DORIN GHEORGHE VIOREL | 08/18/2017 |
| JENNIFER ANDREOLI-FANG | 08/21/2017 |
| NEEHARIKA ALLANKI | 12/29/2017 |

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: | 15470272 |

CORRESPONDENCE DATA

Fax Number: (314)621-2307

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: 314-621-5070

Email: uspatents@armstrongteasdale.com ARMSTRONG TEASDALE LLP **Correspondent Name:**

Address Line 1: 7700 FORSYTH BLVD.

Address Line 2: **SUITE 1800**

Address Line 4: ST. LOUIS, MISSOURI 63105

| ATTORNEY DOCKET NUMBER: | 60957 |
|-------------------------|------------------|
| NAME OF SUBMITTER: | JOSH C. SNIDER |
| SIGNATURE: | /Josh C. Snider/ |
| DATE SIGNED: | 01/04/2018 |

Total Attachments: 5

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WORLDWIDE ASSIGNMENT

WHEREAS, I,

Dorin Gheorghe Viorel, a citizen of the UNITED STATES, having a residence in Erie, CO

Jennifer Andreoli-Fang, a citizen of the UNITED STATES, having a residence in Boulder, CO

Neeharika Allanki, a citizen of the UNITED STATES, having a residence in Boulder, CO

| | | le an invention entitled "SYSTEMS AND METHODS |
|-------------------|-------------------------|--|
| | | RED UNLICENSED SPECTRUM" as set forth and |
| described in U.S | . Application No. 15/47 | 0,272, filed March 27, 2017; International Application |
| No. | filed | ; United States Provisional Application No. |
| 62/313,412, filed | March 25, 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 ALLOCATION IN A SHARED UNLICENSED SPECTRUM" 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.

| 18 ⁴ day of AU2024 | F, I, the said ASSIGNOR , have executed this Assignment this, 2017. |
|-------------------------------|--|
| V | D.V. |
| | Dorin Gheorghe Viorel |
| | |
| | |
| | Danie Calderion of |
| | Witness Signature |
| | Parnela Calderwood |
| | Witness Name |

| REOF, I, the said ASSIGNOR , have executed this Assignment this 29, 2017 2016. AM MST |
|--|
| Meliarika Allanki Newharika Allanki |
| Nevharika Allanki |
| |
| |
| |
| Witness Signature |
| |
| Witness Name |