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| <b>PATENT ASSIGNMENT COVER SHEET</b> |
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3655794

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|---|-----------------------------|
| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT              |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT                  |
| <b>CONVEYING PARTY DATA</b>   |                             |
| <b>Name</b>   | <b>Execution Date</b>       |
| MICHAEL D. ELLIS  | 07/31/2009                  |
| CARON SCHWARTZ  | 07/31/2009                  |
| <b>RECEIVING PARTY DATA</b>   |                             |
| <b>Name:</b>  | 3D RADIO, LLC               |
| <b>Street Address:</b>  | 1715 COLUMBINE AVENUE       |
| <b>City:</b>  | BOULDER                     |
| <b>State/Country:</b>   | COLORADO                    |
| <b>Postal Code:</b>   | 80302                       |
| <b>PROPERTY NUMBERS Total: 1</b>  |                             |
| <b>Property Type</b>  | <b>Number</b>               |
| <b>Application Number:</b>  | 14943002                    |
| <b>CORRESPONDENCE DATA</b>  |                             |
| <b>Fax Number:</b>  | (202)282-5100               |
| <i>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.</i> |                             |
| <b>Phone:</b>   | 202-282-5202                |
| <b>Email:</b>   | eanderson@winston.com       |
| <b>Correspondent Name:</b>  | WINSTON & STRAWN LLP        |
| <b>Address Line 1:</b>  | 1700 K STREET, N.W.         |
| <b>Address Line 2:</b>  | PEJMAN SHARIFI              |
| <b>Address Line 4:</b>  | WASHINGTON, D.C. 20006-3817 |
| <b>ATTORNEY DOCKET NUMBER:</b>  | 86198-24289                 |
| <b>NAME OF SUBMITTER:</b>   | PEJMAN SHARIFI              |
| <b>SIGNATURE:</b>   | /Pejman Sharifi/            |
| <b>DATE SIGNED:</b>   | 12/14/2015                  |
| <b>Total Attachments: 3</b>   |                             |
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| source=86198-24289 - Assignment#page2.tif   |                             |
| source=86198-24289 - Assignment#page3.tif   |                             |

## ASSIGNMENT

WHEREAS, each of

**Caron S. ELLIS and Michael D. ELLIS**, citizens of Colorado residing at 1300 Kingwood Place, Boulder, CO 80304, ASSIGNORS, are inventors in one or more of the patents or patent applications identified in Exhibit A.

WHEREAS, 3D Radio LLC, a limited liability corporate body having a place of business at 1300 Kingwood Place, Boulder, CO 80304, ASSIGNEE, is desirous of obtaining each inventors' entire right, title and interest in, to and under the said invention, the said applications and corresponding applications worldwide.

NOW, THEREFORE, in exchange for good and valuable consideration to each inventor, the receipt and sufficiency of which is hereby acknowledged, each ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, his or her entire, worldwide right, title and interest in, to and under the invention, including any United States provisional or non-provisional application embodying the invention or any other United States application claiming priority to a provisional application under 35 U.S.C. § 119(e) or converted therefrom, or to any application claiming the benefit of a non-provisional application under 35 U.S.C. § 120, including all divisions, continuations, and continuations-in-part thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries other than the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention 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; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for the invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof, the same to be held and enjoyed by the ASSIGNEE, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the ASSIGNOR had this sale and assignment not been made;

And each ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

And each ASSIGNOR hereby covenants and agrees that he or she has the full right to convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement in conflict herewith;

And each ASSIGNOR hereby further covenants and agrees that he or she will communicate to the ASSIGNEE, its successors, legal representatives and assigns, any facts known to him or her respecting said invention, testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the ASSIGNEE or its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries;

And each ASSIGNOR hereby authorizes the ASSIGNEE's patent attorney to complete this form by the addition of the application number, application filing date, and attorney docket number, if necessary.

In witness whereof, each inventor has affixed his or her signature.

7/31/09  
Date

CS Ellis  
Caron S. Ellis

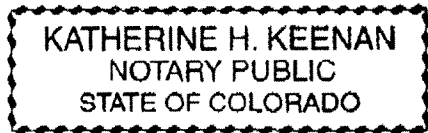
7/31/09  
Date

M D Ellis  
Michael D. Ellis

STATE OF COLORADO )  
COUNTY OF BOULDER )

On this 31<sup>st</sup> day of July, 2009, before me, a Notary Public, personally appeared **Caron S. Ellis and Michael D. Ellis**, to me known and known to me to be the person of that name, who signed the foregoing instrument and acknowledged the same to be his/her free act and deed.

Katherine H Keenan  
Notary Public  
My Commission Expires  
04/14/2012  
My Commission Expires



**EXHIBIT A**

| <b>Application No.</b> | <b>Publication No.</b> | <b>Filing Date</b> | <b>Title</b>   |
|------------------------|------------------------|--------------------|--|
| 60/270,463             |                        | 20-Feb-01          | Enhanced Radio System  |
| PCT/US2002/005039      | WO/2002/067447         | 20-Feb-02          | Enhanced Radio Systems and Methods                                 |
| 10/645,928             | 7,171,174              | 20-Aug-03          | Multiple radio signal processing and storing method and apparatus  |
| 10/869,415             | 7,343,141              | 15-Jun-04          | Concurrent content capturing radio systems and methods             |
| 11/609,512             | 20070127726            | 12-Dec-06          | Multiple radio signal processing and storing methods and apparatus |
| 61/019,094             | N/A                    | 4-Jan-08           | Multi-Tuner Radio Systems and Methods                              |
| 61/019,101             | N/A                    | 4-Jan-08           | Digital Radio Systems and Methods                                  |
| 12/033,616             | 20090023406            | 19-Feb-08          | Enhanced Radio Systems and Methods                                 |
| 61/043,604             | N/A                    | 9-Apr-08           | Alternate User Interfaces for Multi Tuner Radio Device             |
| 61/043,597             | N/A                    | 9-Apr-08           | Radio Device with Virtually Infinite Simultaneous Inputs           |
| 12/348,765             | N/A                    | 5-Jan-09           | Multi-Tuner Radio Systems and Methods                              |
| 12/348,775             | N/A                    | 5-Jan-09           | Digital Radio Systems and Methods                                  |
| 12/420,650             | N/A                    | 8-Apr-09           | Alternate User Interfaces for Multi Tuner Radio Device             |
| 12/420,670             | N/A                    | 8-Apr-09           | Radio Device with Virtually Infinite Simultaneous Inputs           |
| EP2002000714942        | EP1364469              | 12-Sep-03          | Enhanced Radio Systems and Methods                                 |
| CA2002002438998        | CA2438998              | 20-Aug-03          | Enhanced Radio Systems and Methods                                 |