

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF TEXAS  
DALLAS DIVISION**

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|                      |   |                                 |
|----------------------|---|---------------------------------|
| JOHN BERMAN,         | § |                                 |
|                      | § |                                 |
| <i>Plaintiff,</i>    | § |                                 |
|                      | § | Civil Action No.3:16-cv-00382-D |
| v.                   | § |                                 |
|                      | § | Jury Trial Demanded             |
| DIRECTV, LLC and     | § |                                 |
| AT&T SERVICES, INC., | § |                                 |
|                      | § |                                 |
| <i>Defendants.</i>   | § |                                 |

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**SECOND AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff John Berman (“Plaintiff” or “Berman”) files this Second Amended Complaint asserting claims for patent infringement against Defendants DIRECTV, Inc. (“DIRECTV”) and AT&T Services, Inc. (“AT&T Services”) and alleges as follows:

**PARTIES**

1. Plaintiff John Berman (“Berman”) is an individual and resides in the state of Washington with a residential mailing address at P.O. Box 831, Richland, Washington 99352.

2. Defendant DIRECTV is a limited liability company organized and existing under the laws of the State of California, with its principal place of business located at 2260 E. Imperial Highway, Fl. 10, El Segundo, California 90245-3501. DIRECTV may be served with process through its registered agent for service of process CT Corporation System at 1999 Bryan St., Suite 900, Dallas, Texas 75201.

3. DIRECTV is a wholly owned subsidiary of AT&T.

4. AT&T Services is a Delaware corporation with a principal place of business at 208 S. Akard St, Dallas, Texas 75202. AT&T may be served with process through its registered agent for service of process CT Corporation System at 1999 Bryan St., Suite 900, Dallas, Texas 75201.

#### **JURISDICTION AND VENUE**

5. This is a civil action for patent infringement arising under the patent laws of the United States, Title 35, United States Code, including 35 U.S.C. §§ 271 *et seq.* and 281-285.

6. This Court has original jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

7. Defendants DIRECTV and AT&T Services are subject to the specific personal jurisdiction of this Court, because Berman's claims for patent infringement against Defendants, asserted below, arise from Defendants' acts of infringement in the State of Texas. These acts of infringement include making, using, selling, and/or offering for sale infringing products in the State of Texas, as well as placing infringing products into the stream of commerce through an established distribution channel with full awareness that substantial quantities of the products have been shipped into the State of Texas and then used and/or sold in the State of Texas in an infringing manner. Defendants DIRECTV and AT&T Services have consented to jurisdiction in this Court by filing a complaint for declaratory judgment against Plaintiff, John Berman (3:16-cv-01106). Defendants DIRECTV and AT&T Services have also operated an interactive website facilitating the infringing use and sale of products in the State of Texas. Therefore, this Court has personal jurisdiction over the Defendants DIRECTV and AT&T Services under the Texas long-arm statute, TEX. CIV. PRAC. & REM. CODE §17.042.

8. Venue is proper in this district under 28 U.S.C. §§ 1391(c) and 1400(b). Defendants DIRECTV and AT&T Services have engaged in acts of infringement in the State of Texas described above sufficient to subject Defendants to personal jurisdiction in this District if the district were a separate State.

### **ASSERTED PATENTS**

9. On June 4, 1996, the United States Patent and Trademark Office issued United States Patent No. 5,523,791 (“the `791 patent”) entitled “Method and Apparatus for Applying Overlay Images,” a true copy of which is attached as Exhibit 1.

10. On March 11, 1997, the United States Patent and Trademark Office issued United States Patent No. 5,610,665 (“the `665 Patent”) entitled “Interactive Television Graphics Interface,” a true copy of which is attached as Exhibit 2.

11. Berman is the owner of the Asserted Patents and owns all right, title, and interest in the Asserted Patents, including the right to sue for and recover all past, present, and future damages for infringement of the Asserted Patents.

### **ACCUSED INSTRUMENTALITIES**

12. Defendant DIRECTV has made, used, imported, offered for sale, and/or sold, within the United States, certain apparatus, products, and components thereof, including interactive television graphics apparatus and apparatus for inserting an overlay image onto a background video image. These apparatuses include devices such as satellite receivers and digital video recorders, and are referred to herein as the “DIRECTV Accused Instrumentalities.” The DIRECTV Accused Instrumentalities also perform methods of interacting with a video image and methods of inserting an overlay image onto a background video image including those available by and through its website <https://www.directv.com> and its related webpages that

infringed the Asserted Patents. The DIRECTV Accused Instrumentalities include at least the following models: Sat-Go, HR23, HR24, THR22, H23, H24, H25, R22, HR34, and HR44. The DIRECTV Accused Instrumentalities also include any other DIRECTV Set Top Boxes sold, offered for sale, or leased to U.S. DIRECTV customers from February 10, 2010 to March 11, 2014.

13. Defendant AT&T Services has made, used, imported, offered for sale, and/or sold, within the United States, certain apparatus, products, and components thereof, including interactive television graphics apparatus and apparatus for inserting an overlay image onto a background video image. These apparatus include devices such as television receivers and digital video recorders, and are referred to herein as the “AT&T Accused Instrumentalities.” The AT&T Accused Instrumentalities also perform methods of interacting with a video image and methods of inserting an overlay image onto a background video image, including AT&T U-verse brand products and those available by and through its websites <https://www.att.com>, <https://www.att.com/shop/tv/u-verse.html> and its related webpages that infringed the Asserted Patents. AT&T’s Accused Instrumentalities include at least the following models: Motorola VIP1216 DVR, Motorola VIP1225 DVR, Motorola VIP2250 DVR, Cisco IPN430 DVR, Cisco IPN4320 DVR, Cisco ISB7500 DVR, Motorola VIP1200, Motorola VIP2200, Motorola VIP2500, Cisco IPN330, Cisco ISB7000, and Cisco ISB7005. The AT&T Accused Instrumentalities also include any other U-verse Set Top Boxes sold, offered for sale, or leased to U.S. U-verse customers from February 10, 2010 to March 11, 2014.

14. Together the DIRECTV Accused Instrumentalities and the AT&T Accused Instrumentalities are collectively referred to herein as the “Accused Instrumentalities.”

**FIRST CLAIM FOR RELIEF  
(Infringement of the `791 Patent)**

15. Berman incorporates paragraphs 1 through 14 as though fully set forth herein.

16. Defendants DIRECTV and AT&T Services have directly infringed one or more claims of the `791 Patent by making, using, importing, offering for sale, and/or selling, within the United States, the Accused Instrumentalities in violation of 35 U.S.C. § 271(a).

17. More particularly, and without limitation, Defendants DIRECTV and AT&T Services have directly infringed one or more claims of the `791 Patent by making, importing, using (including use for testing purposes), offering for sale, and/or selling the Accused Instrumentalities, all in violation of 35 U.S.C. § 271(a). The Accused Instrumentalities include one or more of the apparatus for inserting an overlay image onto a background video image. The Accused Instrumentalities also comprise methods of interacting with a video image and methods of inserting an overlay image onto a background video image as described and claimed in the `791 Patent. Discovery of source code and schematics is needed to precisely identify every element with more specificity than is given in this document.

18. The DirecTV HR-23 Receiver is representative of the Accused Instrumentalities. An example of an overlay image inserted onto a background video image by the DirecTV HR-23 receiver under the control of signals sent as part of the background video or as part of a data layer coordinated with the background video is the SCOREGUIDE red button image that rises into the lower left quadrant of the screen, as shown here:

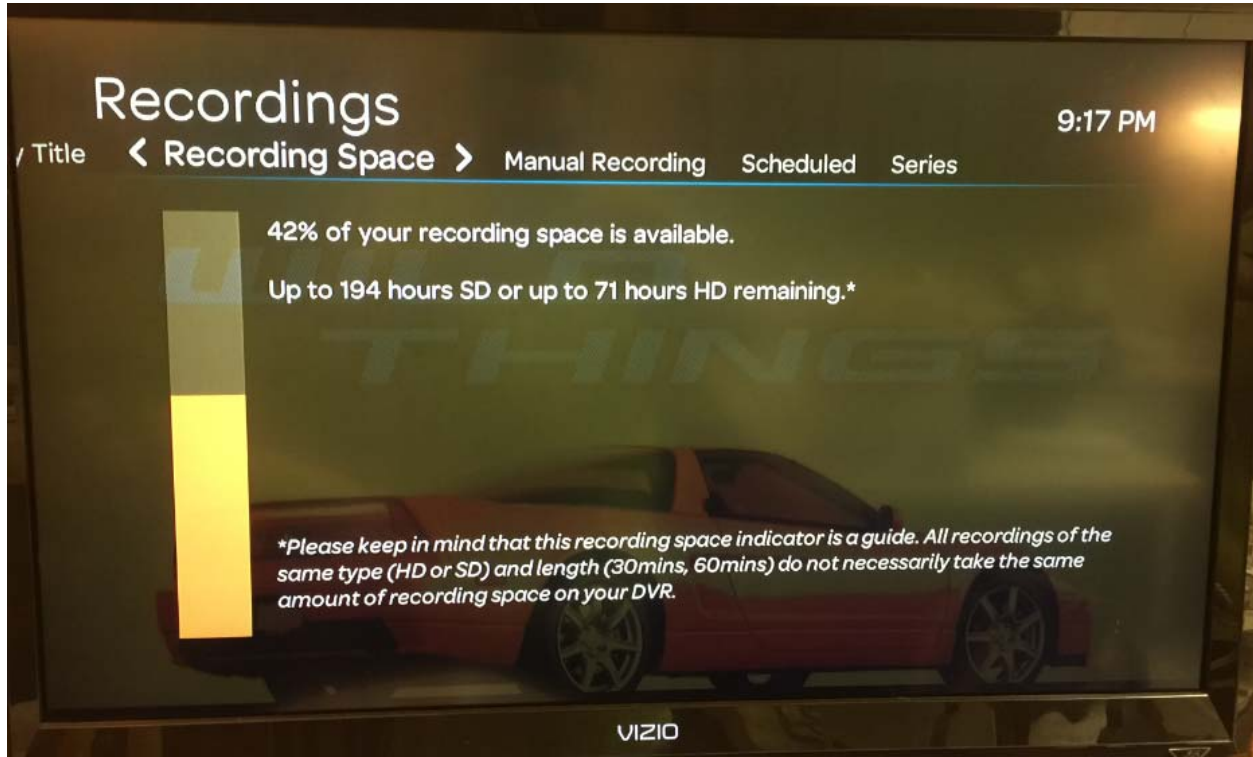




In accordance with Claim 3 of the `791 Patent, for example, the Accused Instrumentalities comprise an operator input means with a red button that the operator presses.

The operator's action of pressing the button causes the insertion of an overlay image onto a background video image. An example of a U-verse overlay inserted over a background image can be seen with the space available graph in the following image:





19. The Accused Instrumentalities include video input means, for receiving a video signal corresponding to said background video image. For example, the representative DirecTV Receiver HR-23 has a satellite input signal:

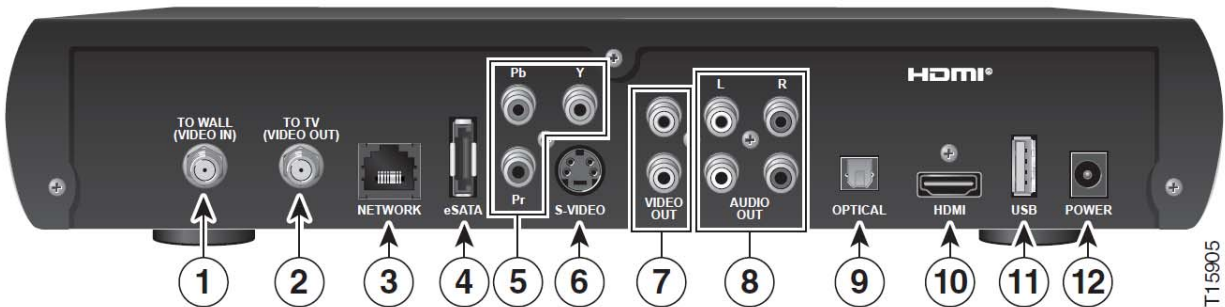


DirecTV HD DVR User Guide, p. 113,

[http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~~/directv-receiver-](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~~/directv-receiver-)



[manual-downloads](#) (last visited 12/4/15). A representative U-verse video input signal can be seen in the following image (input “1”) for the Cisco ISB7000/7500:



Product Manual for Cisco IPTV Receivers,

[https://www.att.com/support\\_media/images/pdf/uverse/4031319B1\\_Cisco\\_UG\\_8\\_31\\_10.pdf](https://www.att.com/support_media/images/pdf/uverse/4031319B1_Cisco_UG_8_31_10.pdf), p.

9. Discovery of source code and schematics will allow Berman to more precisely identify the video input means for each Accused Instrumentality.

20. The Accused Instrumentalities include synchronization means, coupled to said video input means, for generating synchronization signals from said background video signal.

For example, the representative DirecTV Receiver HR-23 supports the AVC video standard:

THIS PRODUCT IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NONCOMMERCIAL USE OF A CONSUMER TO (i) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD (“AVC VIDEO”) AND/OR (ii) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C.

DirecTV HD DVR User Guide, p. 180,

[http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~~/directv-receiver-](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~~/directv-receiver-)

[manual-downloads](#) (last visited 12/4/15). Likewise, U-verse also uses digital video as the documentation for the exemplary ISB7000/ISB 7500 user guide indicates the video is sent over internet protocol (IP) and is therefore necessarily digital. Product Manual for Cisco IPTV Receivers,

[https://www.att.com/support\\_media/images/pdf/uverse/4031319B1\\_Cisco\\_UG\\_8\\_31\\_10.pdf](https://www.att.com/support_media/images/pdf/uverse/4031319B1_Cisco_UG_8_31_10.pdf),

p.1. The MPEG AVC video standard generates synchronization signals from said background video signal:

Macroblocks are assembled into slices that must always represent horizontal strips of picture from left to right. In MPEG, slices can start anywhere and be of arbitrary size, but in ATSC they must start at the left-hand edge of the picture. Several slices can exist across the screen width. The slice is the fundamental unit of synchronization for variable length and differential coding.

A Guide to MPEG Fundamentals and Protocol Analysis, Tektronix, p. 40. Correctly positioning the slices requires synchronization of the background video input signal to the frame. Discovery of source code and schematics will allow Berman to more precisely identify the synchronization means for each Accused Instrumentality.

21. The Accused Instrumentalities include operator input means, for receiving an input command from an operator to select an overlay image. For example, the representative DirecTV Receiver HR-23 receives input commands from a remote control:

## YOUR REMOTE CONTROL

### DIRECTV UNIVERSAL REMOTE CONTROL (RC65 & EARLIER)

The DIRECTV Universal Remote works with your pre-Genie Receivers, as well as the latest Genie DVRs and Mini Clients, as long as the newer devices are programmed to operate in IR Mode.

If your DIRECTV System was installed professionally, your Remote is already programmed to operate your Receiver and TV. To re-program the Remote for a different TV or other audio-visual equipment, press MENU, select Settings & Help, Settings, then Remote Control and follow the onscreen instructions.

DirecTV HD DVR User Guide, p. 12,

[http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~~/directv-receiver-](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~~/directv-receiver-manual-downloads)

[manual-downloads](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~~/directv-receiver-manual-downloads) (last visited 12/4/15). The input from this remote control selects an overlay image:

- **ScoreGuide™** - See updated scores, stats & standings for all major sports (including college conferences), results for games you missed and game schedules up to 7 days in advance. ScoreGuide can also be launched while watching a sports channel like ESPN or MLB Network by pressing the RED button on your remote.

DirecTV HD DVR User Guide, p. 72,

[http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~~/directv-receiver-](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~~/directv-receiver-manual-downloads)

[manual-downloads](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~~/directv-receiver-manual-downloads). Depending on the input from the user via the remote, the overlay has a selection indicator which moves and changes the overlay image. For the exemplary ISB7000/ISB7500, a menu option selected by the user causes the display of the available recording space screen including the space available graphic overlay. Discovery of source code and schematics will allow Berman to more precisely identify the operator input means for each Accused Instrumentality.

22. The Accused Instrumentalities include processor means, coupled to said operator input means, for receiving said input command and generating overlay image data. For example, the representative DirecTV Receiver HR-23 can receive input from the remote control in order to cause the generation of the overlay seen in ¶18. A processor is used to make the overlay image

data based on the user input. For the exemplary ISB7000/ISB7500, a processor uses stored configuration information input by the user to generate the space available graphic overlay. Discovery of source code and schematics will allow Berman to more precisely identify the processor means for each Accused Instrumentality.

23. The Accused Instrumentalities include first memory means, coupled to said processor means, for storing said overlay image data. For example, the representative DirecTV Receiver HR-23 has memory for storing the overlay image shown in ¶ 18 in order to display this image on the background video. Likewise, the space available graphic overlay shown for the exemplary ISB7000/ISB7500 is stored in memory for display. Discovery of source code and schematics will allow Berman to more precisely identify the first memory for each Accused Instrumentality.

24. The Accused Instrumentalities include address generator means, coupled to said memory means, said processor means and said synchronization means for selectively generating memory addresses for said memory means in response to said processor means and in synchronization with said synchronization means. The Accused Instrumentalities, such as the representative DirecTV Receiver HR-23 and Cisco ISB7000/7500, necessarily have a way of generating addresses for the memory. In order to draw the frames at the appropriate times, the address generator is synchronized to the vertical synchronization information. Discovery of source code and schematics will allow Berman to more precisely identify the address generator for each Accused Instrumentality.

25. The Accused Instrumentalities include video output means, coupled to said memory means, for selectively reading the overlay image data from said memory means in

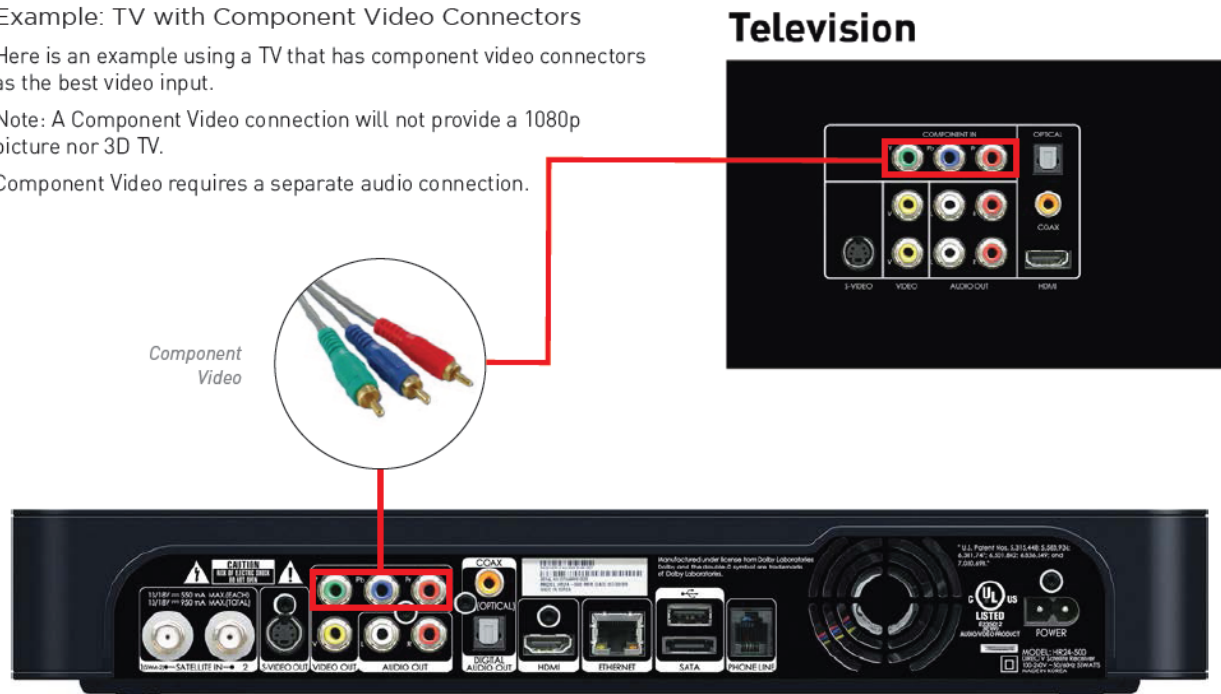
synchronization with said synchronization means and merging said overlay image with said background video image. For the representative DirecTV Receiver HR-23 and U-verse receivers, the merged overlay and background image can be seen in the image shown in ¶ 18 above. An exemplary output from the representative DirecTV Receiver HR-23 is the component video output shown below:

#### Example: TV with Component Video Connectors

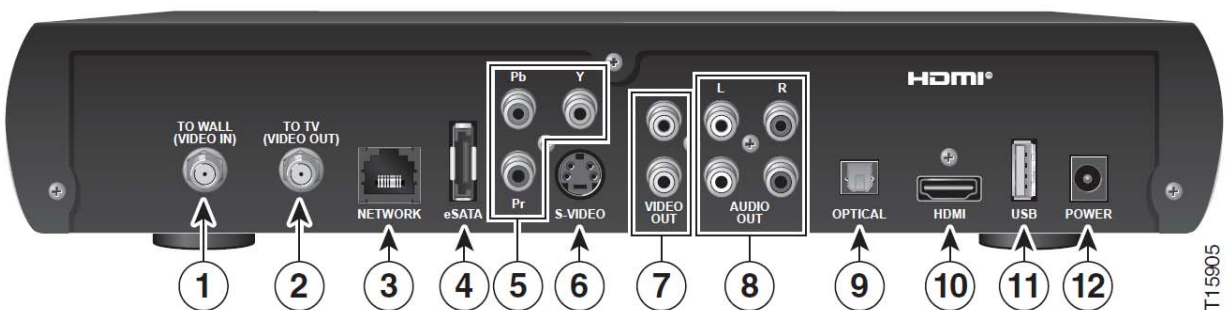
Here is an example using a TV that has component video connectors as the best video input.

Note: A Component Video connection will not provide a 1080p picture nor 3D TV.

Component Video requires a separate audio connection.



*Id.* at p. 154. The representative U-verse video output signal can be seen in the following image (output “5”) for the Cisco ISB7000/7500:



Product Manual for Cisco IPTV Receivers,

[https://www.att.com/support\\_media/images/pdf/uverse/4031319B1\\_Cisco\\_UG\\_8\\_31\\_10.pdf](https://www.att.com/support_media/images/pdf/uverse/4031319B1_Cisco_UG_8_31_10.pdf), p.

9. The Discovery of source code and schematics will allow Berman to more precisely identify the video output means for each Accused Instrumentality.

26. The Accused Instrumentalities include second memory means, coupled to said processor means, for storing a plurality of overlay image data representing a plurality of overlay images. In order for the overlay image shown in the exemplary images in ¶ 18 above to change, the Accused instrumentalities must contain a second memory for storing the second overlay image. Discovery of source code and schematics will allow Berman to more precisely identify the second memory means for each Accused Instrumentality.

27. The Accused Instrumentalities include wherein said operator input means receives an input command from an operator to select an overlay image from said plurality of overlay images. In response to operator input, an appropriate overlay image will be selected for display. The DirecTV receiver generates the appropriate overlay in response to operator input such as the red button. The U-verse receivers generate overlays based on configuration information input by the user. Discovery of source code and schematics will allow Berman to more precisely identify the first memory means for each Accused Instrumentality.

28. The Accused Instrumentalities include said processor means receives selected overlay image data corresponding to a selected image from said second memory means. In order to intelligently generate the appropriate overlay image data a processor is needed to receive the selected image from the second memory. Discovery of source code and schematics will allow Berman to more precisely identify how the processor means receives selected overlay image data



corresponding to a selected image from said second memory means for each Accused Instrumentality.

29. The Accused Instrumentalities include said processor means stores the selected overlay image data in said first memory means. The Accused Instrumentalities store the overlay image data into memory for display on the screen. Discovery of source code and schematics will allow Berman to more precisely identify how the processor stores the selected overlay image data in said first memory means for each Accused Instrumentality.

30. Berman has been damaged by Defendant DIRECTV's and Defendant AT&T Services' infringing activities.

**SECOND CLAIM FOR RELIEF  
(Infringement of the `665 Patent)**

31. Berman incorporates paragraphs 1 through 14 as though fully set forth herein.

32. Defendants DIRECTV and AT&T Services have directly infringed one or more claims of the `665 Patent by making, using, importing, offering for sale, and/or selling, within the United States, the Accused Instrumentalities in violation of 35 U.S.C. § 271(a).

33. More particularly, and without limitation, Defendants DIRECTV and AT&T Services have directly infringed one or more claims of the `665 Patent by making, importing, using (including use for testing purposes), offering for sale, and/or selling the Accused Instrumentality, all in violation of 35 U.S.C. § 271(a). The Accused Instrumentalities also includes one or more of the interactive television graphics apparatus, and the Accused Instrumentalities also comprises methods for inserting an overlay image onto a background video image as described and claimed in the `665 Patent.

34. In accordance with Claim 1 of the '665 Patent, for example, the Accused Instrumentalities comprise an interactive television graphics apparatus. The DirecTV HR-23 Receiver is representative of the Accused Instrumentalities. An example of an interactive television graphic generated by the DirecTV HR-23 receiver under the control of signals sent as part of the background video or as part of a data layer coordinated with the background video is the SCOREGUIDE red button graphic image that rises into the lower left quadrant of the screen, as shown here:





An example of a U-verse interactive graphic can be seen with the space available graph in the following image:

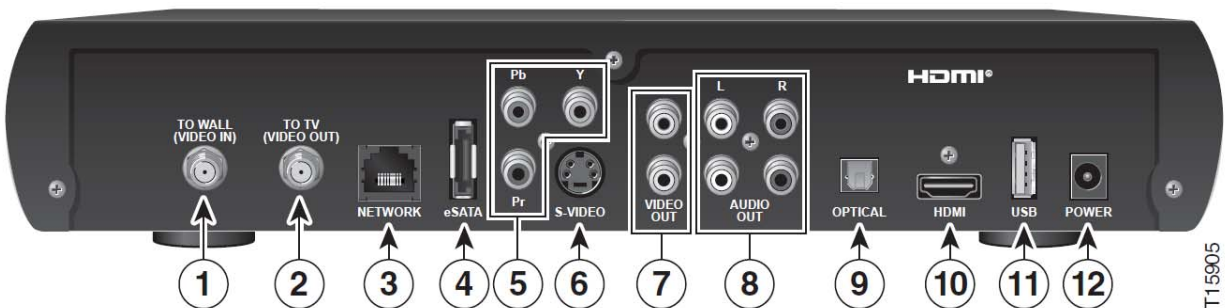


35. The Accused Instrumentalities include video input means for receiving a background video signal, the background video signal including at least one graphics control signal for performing one or more of the following functions: selecting a locally generated graphic image overlay component, positioning a graphic image overlay component, and defining a bit map of a graphic image overlay component. For example, the representative DirecTV Receiver HR-23 has a satellite input signal:



DirecTV HD DVR User Guide, p. 113,

[http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~/-directv-receiver-manual-downloads](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~/-directv-receiver-manual-downloads) (last visited 12/4/15). A representative U-verse video input signal can be seen in the following image (input “1”) for the Cisco ISB7000/7500:



Product Manual for Cisco IPTV Receivers,

[https://www.att.com/support\\_media/images/pdf/uverse/4031319B1\\_Cisco\\_UG\\_8\\_31\\_10.pdf](https://www.att.com/support_media/images/pdf/uverse/4031319B1_Cisco_UG_8_31_10.pdf), p.

9. The background video signal contains vertical synchronization information that is used to control the position of the graphic overlay on the screen. Discovery of source code and schematics will allow Berman to more precisely identify the video input means and how the vertical synchronization information is used to position a graphic image overlay component for each Accused Instrumentality.

36. The Accused Instrumentalities include memory means for storing at least one graphic image overlay component, including one or more of: a locally generated graphic image overlay component, and a bit map of a graphic image overlay component received from the video input means. For example, the graphic overlays shown in ¶ 34 are stored in memory.



Discovery of source code and schematics will allow Berman to more precisely identify the memory for each Accused Instrumentality.

37. The Accused Instrumentalities include processor means, coupled to the video input means and the memory means for receiving the graphics control signals and generating a graphic image as an overlay over the background video in response to received graphics control signals, wherein the graphics control signals comprise signals for selecting a graphic image stored in the display means. The Accused Instrumentalities have processors to perform the responsive overlay generation seen in the examples shown in ¶ 34 in response to received graphics control signals such as the vertical synchronization information. Discovery of source code and schematics will allow Berman to more precisely identify the processor and how it receives graphics control signals and generates overlay images in response to control signals for each Accused Instrumentality.

38. In accordance with Claim 11 of the '665 Patent, for example, the Accused Instrumentalities perform a method for inserting an overlay image onto a background video image. The DirecTV HR-23 Receiver is representative of the Accused Instrumentalities. An example overlay image inserted onto a background video by the DirecTV HR-23 receiver is the SCOREGUIDE red button image that rises into the lower left quadrant of the screen, as shown here:





An example overlay image inserted onto a background video by a U-verse receiver can be seen with the space available graph in the following image:

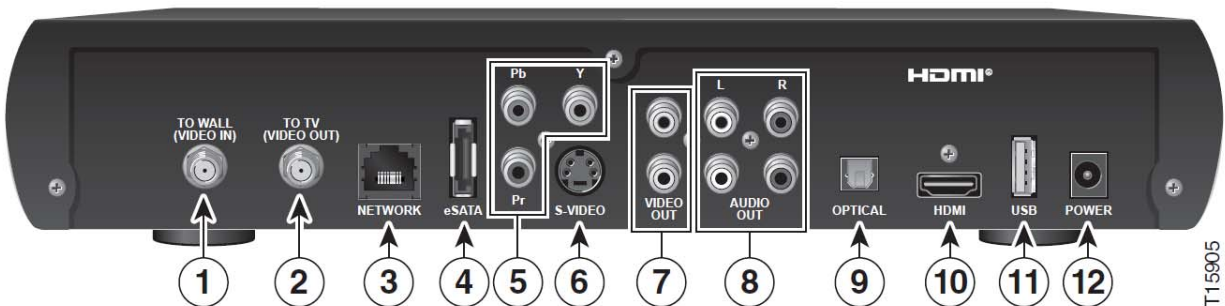


39. The method performed by the Accused Instrumentalities includes the step of receiving a background video signal, the background video signal including at least one graphics control signal for performing one or more of the following functions: selecting a locally generated graphic image overlay component, positioning a graphic image overlay component, and defining a bit map of a graphic image overlay component. For example, the representative DirecTV Receiver HR-23 has a satellite input signal:



DirecTV HD DVR User Guide, p. 113,

[http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~/~directv-receiver-manual-downloads](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~/~directv-receiver-manual-downloads) (last visited 12/4/15). A representative U-verse video input signal can be seen in the following image (input "1") for the Cisco ISB7000/7500:



Product Manual for Cisco IPTV Receivers,

[https://www.att.com/support\\_media/images/pdf/uverse/4031319B1\\_Cisco\\_UG\\_8\\_31\\_10.pdf](https://www.att.com/support_media/images/pdf/uverse/4031319B1_Cisco_UG_8_31_10.pdf), p.

9. The background video signal contains vertical synchronization information that is used to control the position of the graphic overlay on the screen. Discovery of source code and schematics will allow Berman to more precisely identify how each Accused Instrumentality receives a background video signal and uses the vertical synchronization information to position a graphic image overlay component.

40. The method performed by the Accused Instrumentalities includes the step of storing at least one graphic image overlay component, including one or more of a locally generated graphic image overlay component and a received bit map of a graphic image overlay component. For example, the graphic overlays shown in ¶ 38 are stored in memory. Discovery of source code and schematics will allow Berman to more precisely identify how each Accused Instrumentality stores graphic image overlay components in memory.

41. The method performed by the Accused Instrumentalities includes the step of generating a graphic image as an overlay over the background video in response to received graphics control signals. The Accused Instrumentalities generate graphic overlays as shown in the examples of ¶ 38 in response to received graphics control signals such as the vertical synchronization information. Discovery of source code and schematics will allow Berman to more precisely identify how each Accused Instrumentality generates a graphic image as an overlay over the background video in response to received graphics control signals.

42. The method performed by the Accused Instrumentalities includes the step of generating synchronization signals from the background video signal. For example, the representative DirecTV Receiver HR-23 supports the AVC video standard:

THIS PRODUCT IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NONCOMMERCIAL USE OF A CONSUMER TO (i) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD (“AVC VIDEO”) AND/OR (ii) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C.

DirecTV HD DVR User Guide, p. 180,

[http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~/-directv-receiver-manual-downloads](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~/-directv-receiver-manual-downloads) (last visited 12/4/15). Likewise, U-verse also uses digital video as the

documentation for the exemplary ISB7000/ISB 7500 user guide indicates the video is sent over internet protocol (IP) and is therefore necessarily digital. Product Manual for Cisco IPTV Receivers,

[https://www.att.com/support\\_media/images/pdf/uverse/4031319B1\\_Cisco\\_UG\\_8\\_31\\_10.pdf](https://www.att.com/support_media/images/pdf/uverse/4031319B1_Cisco_UG_8_31_10.pdf), p.

1. The MPEG AVC video standard generates synchronization signals from said background video signal:

Macroblocks are assembled into slices that must always represent horizontal strips of picture from left to right. In MPEG, slices can start anywhere and be of arbitrary size, but in ATSC they must start at the left-hand edge of the picture. Several slices can exist across the screen width. The slice is the fundamental unit of synchronization for variable length and differential coding.

A Guide to MPEG Fundamentals and Protocol Analysis, Tektronix, p. 40. Correctly positioning the slices requires synchronization of the background video input signal to the frame. Discovery of source code and schematics will allow Berman to more precisely identify how each Accused Instrumentality generates synchronization signals from the background video signal.

43. The method performed by the Accused Instrumentalities includes the step of receiving an input command from a user to select an overlay image. For example, the representative DirecTV Receiver HR-23 receives input commands from a remote control:

## YOUR REMOTE CONTROL

### DIRECTV UNIVERSAL REMOTE CONTROL (RC65 & EARLIER)

The DIRECTV Universal Remote works with your pre-Genie Receivers, as well as the latest Genie DVRs and Mini Clients, as long as the newer devices are programmed to operate in IR Mode.

If your DIRECTV System was installed professionally, your Remote is already programmed to operate your Receiver and TV. To re-program the Remote for a different TV or other audio-visual equipment, press MENU, select Settings & Help, Settings, then Remote Control and follow the onscreen instructions.

DirecTV HD DVR User Guide, p. 12,

[http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-)

[44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~/\\_directv-receiver-](44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~/_directv-receiver-)

<manual-downloads> (last visited 12/4/15). The input from this remote control selects an overlay

image:

- **ScoreGuide™** - See updated scores, stats & standings for all major sports (including college conferences), results for games you missed and game schedules up to 7 days in advance. ScoreGuide can also be launched while watching a sports channel like ESPN or MLB Network by pressing the RED button on your remote.

DirecTV HD DVR User Guide, p. 72,

[http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~/\\_directv-receiver-manual-downloads](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~/_directv-receiver-manual-downloads). Depending on the input from the user via the remote, the overlay has a

selection indicator which moves and changes the overlay image. For the exemplary ISB7000/ISB7500, a menu option selected by the user causes the display of the available recording space screen including the space available graphic overlay. Discovery of source code and schematics will allow Berman to more precisely identify how each Accused Instrumentality receives an input command from a user to select an overlay image.

44. The method performed by the Accused Instrumentalities includes the step of generating overlay image data in response to the input command and storing the overlay image data in a first memory. The Accused Instrumentalities generate overlay image data such as is shown in ¶ 38 in response to input commands from the remote and store that image data in memory. Discovery of source code and schematics will allow Berman to more precisely identify how each Accused Instrumentality generates overlay image data in response to the input command and stores the overlay image data in memory.

45. The method performed by the Accused Instrumentalities includes the step of selectively generating memory addresses for the first memory in synchronization with the synchronization signals. The Accused Instrumentalities generate memory addresses to position the overlays shown in ¶ 38 correctly in synchronization with the vertical synchronization information from the background video. Discovery of source code and schematics will allow



Berman to more precisely identify how each Accused Instrumentality selectively generates memory addresses for the first memory in synchronization with the synchronization signals.

46. The method performed by the Accused Instrumentalities includes the step of selectively reading the overlay image data from the first memory in synchronization with the synchronization signal and merging the overlay image with the background video image. For example, the graphic overlays shown in ¶38 must be read from memory at the correct time (in synchronization with) the background video in order to be properly positioned within the background video image. Discovery of source code and schematics will allow Berman to more precisely how each Accused Instrumentality selectively reads the overlay image data from the first memory in synchronization with the synchronization signal and merges the overlay image with the background video image.

47. Berman has been damaged by Defendant DIRECTV's, AT&T Services' and Defendant AT&T's infringing activities.

#### **DEMAND FOR JURY TRIAL**

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Berman hereby demands a trial by jury of all issues so triable.

#### **PRAYER FOR RELIEF**

WHEREFORE, Berman requests the following relief:

(a) A judgment in favor of Berman that Defendants have directly infringed one or more claims of the Asserted Patents;

(b) A judgment and order requiring Defendants to pay Berman damages adequate to compensate for infringement under 35 U.S.C. § 284, which damages may include lost profits but in no event shall be less than a reasonable royalty for its usage made of the inventions of the

Asserted Patents, including pre- and post-judgment interest and costs, including expenses and disbursements;

(c) A judgment awarding Berman its costs as provided under FED. R. CIV. P. 54(d)(1);

(d) A judgment for pre- and post-judgment interest on all damages awarded;

(e) A judgment awarding Berman post-judgment royalties; and

Any and all such further necessary or proper relief as this Court may deem just and equitable.

Dated: August 22, 2016

Respectfully submitted,

**BUETHER JOE & CARPENTER, LLC**

By: /s/ Mark Perantie

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