

EXHIBIT 21

Defendant's Invalidation Contentions
Exhibit E2

Invalidity of U.S. Patent No. 10,084,991
by
U.S. Patent No. 7,565,680 to Asmussen ("Asmussen")

The excerpts cited herein are exemplary. For any claim limitation, Defendant may rely on excerpts cited for any other limitation and/or additional excerpts not set forth fully herein to the extent necessary to provide a more comprehensive explanation for a reference's disclosure of a limitation. Where an excerpt refers to or discusses a figure or figure items, that figure and any additional descriptions of that figure should be understood to be incorporated by reference as if set forth fully therein.

Except where specifically noted otherwise, this chart applies the apparent constructions of claim terms as used by Plaintiff in its infringement contentions; such use, however, does not imply that Defendant adopts or agrees with Plaintiff's constructions in any way.

U.S. Patent No. 10,084,991 ("the '991 Patent") claims priority to Japanese Application No. 2008-246232, filed September 25, 2008. For purposes of these invalidity contentions, Defendant applies the Sep. 25, 2008, priority date for the '991 Patent. However, Defendant reserves the right to contest Plaintiff's reliance on the Sep. 25, 2008, priority date, should the priority date become an issue in this proceeding.

U.S. Patent No. 7,565,680 to Asmussen ("*Asmussen*") was filed on June 30, 2000. *Asmussen* therefore qualifies as prior art with regard to the '991 Patent at least under 35 U.S.C. § 102(e) (pre-AIA).

U.S. Patent No. 7,548,255 to Bear, et al. ("*Bear*") was filed on September 30, 2003. *Bear* therefore qualifies as prior art with regard to the '991 Patent at least under 35 U.S.C. § 102(e) (pre-AIA).

U.S. Patent Application Publication No. 2007/0139514 to Marley ("*Marley*") published on June 21, 2007. *Marley* qualifies as prior art with regard to the '991 Patent at least under 35 U.S.C. §§ 102(a) and (b) (pre-AIA).

U.S. Patent Application Publication No. 2003/0041333 to Allen, et al. ("*Allen*") was published on February 27, 2003. *Allen* therefore qualifies as prior art with regard to the '991 Patent at least under 35 U.S.C. §§ 102(a) and (b) (pre-AIA).

U.S. Patent No. 7,046,268 to Saburi ("*Saburi*") was published on May 16, 2006. *Saburi* therefore qualifies as prior art with regard to the '991 Patent at least under 35 U.S.C. §§ 102(a) and (b) (pre-AIA).

Asmussen anticipates or otherwise renders obvious claims 1-5 and 8-12 under 35 U.S.C. §§ 102 and 103(a).

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Alternatively, Asmussen in view of Marley renders claims 1 and 8 obvious under 35 U.S.C. § 103(a).

Alternatively, Asmussen in view of Saburi renders claims 1 and 8 obvious under 35 U.S.C. § 103(a).

Alternatively, Asmussen in view of Bear renders claims 1 and 8 obvious under 35 U.S.C. § 103(a).

Alternatively, Asmussen in view of any of Marley, Saburi, and/or Bear renders claims 1 and 8 obvious under 35 U.S.C. § 103(a).

Alternatively, Asmussen in view of Allen renders claims 2-5 and 9-12 obvious under 35 U.S.C. § 103(a).

Alternatively, Asmussen in view of Marley and further in view of Allen renders claims 2-5 and 9-12 obvious under 35 U.S.C. § 103(a).

Alternatively, Asmussen in view of Saburi and further in view of Allen renders claims 2-5 and 9-12 obvious under 35 U.S.C. § 103(a).

Alternatively, Asmussen in view of Bear and further in view of Allen renders claims 2-5 and 9-12 obvious under 35 U.S.C. § 103(a).

Alternatively, Asmussen in view of any of Marley, Saburi, and/or Bear and further in view of Allen renders claims 2-5 and 9-12 obvious under 35 U.S.C. § 103(a).

U.S. Patent No. 10,084,991	Asmussen
<i>Claim 1</i>	
[1(P)] A communication apparatus for transmitting and receiving digital information to and from another communication apparatus, comprising:	To the extent the preamble is limiting, Asmussen discloses a communication apparatus for transmitting and receiving digital information to and from another communication apparatus. <i>A set top terminal equipped with a camera and microphone includes the capability to send and receive video calls through a cable television delivery system or other communications networks. In response to detection of the occurrence of a video call event or triggering event, a video program is automatically paused. In response to an incoming video phone call, message, web page, or other video communications information, the system pauses the video program and displays an indication of the occurrence of the</i>

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communications event. The system also buffers the video program while paused, permitting a user to replay missed portions of it.

Asmussen at Abstract.

The present invention is a set top converter box or terminal for a television program delivery system. More specifically, the present invention is an advanced set top converter box that acts as a terminal in the viewer's home. The set top terminal is a key component of a digital cable television delivery system. The set top terminal is an upgradeable system that provides for the decompression of digital program signals. The preferred set top terminal provides both a menu generation capability as well as a number of advanced features and functional capabilities.

Asmussen at 3:20-30.

Such features include the capability to send and receive video calls through the set top terminal equipped with a camera and microphone. The video call can be communicated through the cable television delivery system or other communications networks.

Asmussen at 4:5-9.

Still other such features include caller identification of video calls and dual display of video programs and video calls, such as picture in picture. The video call functionality can be built into a set top terminal or provided as a hardware upgrade to a set top terminal.

Asmussen at 4:26-30.

Additionally, the set top terminal 220 includes a camera input 666 and a microphone jack 667, by which a camera and microphone, respectively, can be

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	<p><i>steady state unlit when the camera is off, steady state red when video capture is taking place, a slowly blinking red indicator light when there is an incoming video call, or steady state green when the camera is used for proximity detection. Note that although video-capable applications can set this indicator to a particular color such as red when recording, the firmware may additionally ensure the indicator is set to red if the camera is actively streaming video.</i></p> <p><i>Bear at 7:46-60.</i></p>
<i>Claim 2</i>	
<p>2. The communication apparatus according to claim 1, wherein after the videophone call is finished, the processor restarts the displaying of the first digital information.</p>	<p>Asmussen discloses wherein after the videophone call is finished, the processor restarts the displaying of the first digital information.</p> <p><i>A set top terminal equipped with a camera and microphone includes the capability to send and receive video calls through a cable television delivery system or other communications networks. In response to detection of the occurrence of a video call event or triggering event, a video program is automatically paused. In response to an incoming video phone call, message, web page, or other video communications information, the system pauses the video program and displays an indication of the occurrence of the communications event. The system also buffers the video program while paused, permitting a user to replay missed portions of it. Alternatively, the system waits for a triggering event, which includes the user's access to the communications event, in order to pause the video program. The set top terminal also includes features for caller identification of video calls and dual display of video programs and video calls, such as picture in picture. A hardware upgrade for adding video call functionality to a set top terminal is also disclosed.</i></p> <p><i>Asmussen at Abstract.</i></p> <p><i>Other such features include a system for automatically pausing a video program in response to detection of the occurrence of a video call event or triggering event. In response to an incoming video phone call, message, web</i></p>

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