9,578,369 Patent:

| Term | Preliminary Construction | Extrinsic Evidence |
|---|--|--|
| "communication unit" (Claims 1/2/10/11) | Function: conducting communication with a mobile terminal Structure: networking component implemented with hardware (e.g., network communication unit 207 or communication unit 300) and software (e.g., communication module) within an information processing or display apparatus that: (1) conducts communication with a mobile terminal via radio communication according to standards of, for example, Bluetooth or the wireless Local Area Network (LAN) or IRDA; and (2) connects to the internet using a communication protocol of, for example, HTTP, or equivalents thereof. | Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '369 Patent. A summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |
| "control unit" (Claims 1/2/10/11) | Function : controlling the display unit Structure : an information processing device within an information or display processing apparatus, for example an MPU or microprocessor, that: (1) controls operations of processing units required to reproduce digital content; (2) accesses the internet; and (3) controls the display unit based upon information received from the communication unit. | Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '369 Patent. A summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |

| "a video processing unit to conduct video processing to both a video content acquired via the broadcast signal and a video content acquired via the internet" (Claims 3/12) | Not governed by 35 U.S.C. §112(6) Plain and ordinary meaning. To the extent governed by 35 U.S.C. §112(6): Function: conducting video processing to both a video content acquired via the broadcast signal and a video content acquired via the internet Structure: a video processor within an information or display processing apparatus implemented using processing devices such as an Application Specific Integrated Circuit (ASIC), a Field Programmable Gate Array (FPGA), and a Micro Processing Unit (MPU), that controls operations of processing units required to receive, convert, and output video signals into a signal suitable for input to the display unit | "broadcast 1. To send information to two or more receiving devices simultaneously In the less intelligent world of 'broadcast media,' a local TV or radio station might use a terrestrial antenna or a satellite system to transmit information from a single source to any TV set or radio capable of receiving the signal within the area of coverage." Newton's Telecom Dictionary, 23rd Ed. (2007) at 181. "broadcast (v.) 1. To transmit television and radio programs through the air." The Dictionary of Multimedia, 4th Ed. (2005) at 55. Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '369 Patent. A summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |
|---|---|--|
| "control the display unit to terminate displaying of the first video content and to start displaying a second video content acquired via the internet when the | Receiving, using a communication scheme in which a communication link is established between a TV and a mobile terminal, control information that is interpreted by the information processing apparatus to perform a TV operation of | Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '369 Patent. A |

| communication unit receives first information from the mobile terminal" (Claims 1/2) | terminating displaying of the first video content and starting displaying of a second video content acquired via the internet, the control information being different from general infrared-ray or RF command used in a TV set's remote controller | summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |
|--|---|--|
| "control displaying of the second video content on the display unit based on second information for operating the second video content displayed on the display unit when the communication unit receives the second information from the mobile terminal" (Claims 1/2) | Receiving, using a communication scheme in which a communication link is established between a TV and a mobile terminal, control information that is interpreted by the information processing apparatus to perform a TV operation of operating the second video content acquired via the internet, the control information being different from general infrared-ray RF command used in a TV set's remote controller | Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '369 Patent. A summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |
| "control the display unit to terminate displaying of the second video content when the communication unit receives third information from the mobile terminal" (Claims 1/2) | Receiving, using a communication scheme in which a communication link is established between a TV and a mobile terminal, control information that is interpreted by the information processing apparatus to perform a TV operation of terminating displaying of the second video content, the control information being different from general infrared-ray RF command used in a TV set's remote controller | Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '369 Patent. A summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |

| "acquired via [a/the] broadcast signal" (Claims 2/3/11/12) | obtained by tuning a receiver to a television station signal received via an antenna or a cable | "digital broadcast receiving unit 200 is a circuit which receives desired broadcast data via an antenna or a cable and |
|--|---|---|
| (Claims 2/3/11/12) | antenna or a cable | restores, based on received signals, the broadcast data into data to be digitally processed by the digital broadcast signal processing unit 201 The digital broadcast signal processing unit 201 includes, for example, a signal separator to conduct demultiplexing of a signal and a decoder to conduct decoding of a signal." |
| | | "broadcast 1. To send information to two or more receiving devices simultaneously In the less intelligent world of 'broadcast media,' a local TV or radio station might use a terrestrial antenna or a satellite system to transmit information from a single source to any TV set or radio capable of receiving the signal within the area of coverage." Newton's Telecom Dictionary, 23rd Ed. (2007) at 181. |
| | | " broadcast (v.) 1. To transmit television and radio programs through the air." The Dictionary of Multimedia, 4th Ed. (2005) at 55. |

<u>10,321,206 Patent</u>:

| Term | Preliminary Construction | Extrinsic Evidence |
|---|---------------------------------|--|
| "intermediate interface" (Claims 1/4/9/12) | Plain and ordinary meaning. | "Interface Definition: A point of connection (virtual or physical) between two pieces or two software systems, or between a user and a computer or electronic system (See also GUI.)" Tech Terms (2006) at 137. |
| "background program" (Claims 1/9) | Plain and ordinary meaning. | "background program a computer program with very low priority." Dictionary of Computing, 5th Ed. (2004) at 30. "background processing The processing of computer programs with a low priority in a way that does not allow interaction with the user through the keyboard. Programs run in this way are called background programs and are processed at times when programs with a higher priority are not using the computer." Dictionary of Computer Science, Revised Ed. (2006) at 15. |
| (Claim 1) "triggering, in response to the intermediate interface has been completely loaded, the AV application,, to release an AV decoder" | Plain and ordinary meaning. | "background A system in a computer where low-priority work can be done in the intervals when very important work is not being done." Dictionary of Computing, 5th Ed. (2004) at 30. |

| (Claim 9) "in response to the intermediate interface has been completely loaded, trigger the AV application,, to release an AV decoder" | " load To transfer a file or program from disk to main memory." Dictionary of Computing, 5th Ed. (2004) at 196. |
|---|--|
| all A v decoder | "loading the action of transferring a file or program from disk to memory." Dictionary of Computing, 5th Ed. (2004) at 196. |
| | "release (of software) to relinquish control of a block of memory or file." Dictionary of Computing, 5th Ed. (2004) at 282. |
| | "Load Definition In computer environments, refers to the process of taking information from eternal sources such as CD-ROMs or a hard drive and transporting it into active computer memory or RAM." Tech Terms (2006) at 155. |
| | "Trigger Definition: An action that occurs when some pre-specified condition or conditions are met. Tech Terms (2006) at 250. |
| | "A/V (Audio/Visual) Definition: A more contemporary usage references computer-developed programming materials containing audio, video, and other electronic media content or multimedia." Tech Terms (2006) at 20. |

| "playback interface of the target AV application" (Claims 2/3/10/11) | Plain and ordinary meaning. | "A/V (Audio/Visual) Definition: A more contemporary usage references computer-developed programming materials containing audio, video, and other electronic media content or multimedia." Tech Terms (2006) at 20. |
|---|-----------------------------|--|
| | | "Interface Definition: A point of connection (virtual or physical) between two pieces or two software systems, or between a user and a computer or electronic system (See also GUI.)" Tech Terms (2006) at 137. |

7,986,858 Patent:

| Term | Preliminary Construction | Extrinsic Evidence |
|--|--|---|
| "luminance data calculation unit" (Claims 1/4) | Not governed by 35 U.S.C. §112(6) Plain and ordinary meaning. | "luminance (n.) Degree of brightness or intensity. One of the three image characteristics coded in a component video signal (represented by the letter Y) and measured in lux or foot-candles. Luminance is the black-and-white portion of a video signal. The other two components of a video signal are the red and blue chroma factors." The Dictionary of Multimedia, 4th Ed. (2005) at 265. "luminance The measurable, luminous |
| | | intensity of a video signal." Newton's |

| | | Telecom Dictionary, 23rd Ed. (2007) at 571. "luminance: The measured intensity from a portion of a scene." Dictionary of Computer Vision and Image Processing (2005) at 165. "pixel: The intensity values of a digital image are specified at the locations of a discrete rectangular grid; each local is a pixel." Dictionary of Computer Vision and Image Processing (2005) at 218-220. Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '858 Patent. A summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |
|-------------------------------|-----------------------------------|---|
| "a position calculation unit" | Not governed by 35 U.S.C. §112(6) | " pixel (pel, picture element) (n.) An abbreviation of picture element; the |
| (Claim 1) | Plain and ordinary meaning. | smallest raster display element |
| | | represented as a screen coordinate with a |
| | | specified color and intensity level. Picture |
| | | resolution is measured by the number of pixels used to create an image." The |

| "a correction amount calculation unit" | Not governed by 35 U.S.C. §112(6) | Dictionary of Multimedia, 4th Ed. (2005) at 317-18. "pixel Picture Element. The smallest unit of area of a video screen image that can be turned on or off, or varied in intensity." Newton's Telecom Dictionary, 23rd Ed. (2007) at 718. "pixel: The intensity values of a digital image are specified at the locations of a discrete rectangular grid; each local is a pixel." Dictionary of Computer Vision and Image Processing (2005) at 218-220. Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '858 Patent. A summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |
|--|-----------------------------------|--|
| | | "luminance (n.) Degree of brightness or intensity. One of the three image |
| (Claim 1) | Plain and ordinary meaning. | characteristics coded in a component video signal (represented by the letter Y) and measured in lux or foot-candles. Luminance is the black-and-white portion of a video signal. The other two components of a video signal are the red |

and blue chroma factors." The Dictionary of Multimedia, 4th Ed. (2005) at 265. "luminance The measurable, luminous intensity of a video signal." Newton's Telecom Dictionary, 23rd Ed. (2007) at 571. "luminance: The measured intensity from a portion of a scene." Dictionary of Computer Vision and Image Processing (2005) at 165. "pixel (pel, picture element) (n.) An abbreviation of picture element; the smallest raster display element represented as a screen coordinate with a specified color and intensity level. Picture resolution is measured by the number of pixels used to create an image." The Dictionary of Multimedia, 4th Ed. (2005) at 317-18. "pixel Picture Element. The smallest unit of area of a video screen image that can be turned on or off, or varied in intensity." Newton's Telecom Dictionary, 23rd Ed. (2007) at 718. "pixel: The intensity values of a digital image are specified at the locations of a discrete rectangular grid; each local is a

| | | pixel." Dictionary of Computer Vision and Image Processing (2005) at 218-220. Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '858 Patent. A summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |
|--------------------|-----------------------------------|---|
| "an addition unit" | Not governed by 35 U.S.C. §112(6) | "luminance (n.) Degree of brightness or intensity. One of the three image |
| (Claim 1) | Plain and ordinary meaning. | characteristics coded in a component video signal (represented by the letter Y) and measured in lux or foot-candles. Luminance is the black-and-white portion of a video signal. The other two components of a video signal are the red and blue chroma factors." The Dictionary of Multimedia, 4th Ed. (2005) at 265. "luminance The measurable, luminous intensity of a video signal." Newton's Telecom Dictionary, 23rd Ed. (2007) at 571. |
| | | "luminance: The measured intensity from a portion of a scene." Dictionary of |

Computer Vision and Image Processing (2005) at 165. "pixel (pel, picture element) (n.) An abbreviation of picture element; the smallest raster display element represented as a screen coordinate with a specified color and intensity level. Picture resolution is measured by the number of pixels used to create an image." The Dictionary of Multimedia, 4th Ed. (2005) at 317-18. "**pixel** Picture Element. The smallest unit of area of a video screen image that can be turned on or off, or varied in intensity." Newton's Telecom Dictionary, 23rd Ed. (2007) at 718. "pixel: The intensity values of a digital image are specified at the locations of a discrete rectangular grid; each local is a pixel." Dictionary of Computer Vision and Image Processing (2005) at 218-220. Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '858 Patent. A summary of Mr. Bohannon's likely

opinion testimony, along with Mr.

| | | Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |
|--|---|--|
| "a luminance data correction unit" (Claim 1) | Not governed by 35 U.S.C. §112(6) Plain and ordinary meaning. | "luminance (n.) Degree of brightness or intensity. One of the three image characteristics coded in a component video signal (represented by the letter Y) and measured in lux or foot-candles. Luminance is the black-and-white portion of a video signal. The other two components of a video signal are the red and blue chroma factors." The Dictionary of Multimedia, 4th Ed. (2005) at 265. "luminance The measurable, luminous intensity of a video signal." Newton's Telecom Dictionary, 23rd Ed. (2007) at 571. "luminance: The measured intensity from a portion of a scene." Dictionary of Computer Vision and Image Processing (2005) at 165. "pixel (pel, picture element) (n.) An abbreviation of picture element; the smallest raster display element represented as a screen coordinate with a specified color and intensity level. Picture resolution is measured by the number of pixels used to create an image." The Dictionary of Multimedia, 4th Ed. (2005) at 317-18. |

| | | "pixel Picture Element. The smallest unit of area of a video screen image that can be turned on or off, or varied in intensity." Newton's Telecom Dictionary, 23rd Ed. (2007) at 718. "pixel: The intensity values of a digital image are specified at the locations of a discrete rectangular grid; each local is a pixel." Dictionary of Computer Vision and Image Processing (2005) at 218-220. Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '858 Patent. A summary of Mr. Bohannon's likely |
|--|-----------------------------|--|
| | | opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |
| "parallelly calculating correction amounts of the first luminance data for the corresponding positions based on the first luminance data, third luminance data of the target pixels, and the corresponding positions" (Claim 7) | Plain and ordinary meaning. | "luminance (n.) Degree of brightness or intensity. One of the three image characteristics coded in a component video signal (represented by the letter Y) and measured in lux or foot-candles. Luminance is the black-and-white portion of a video signal. The other two components of a video signal are the red and blue chroma factors." The Dictionary of Multimedia, 4th Ed. (2005) at 265. |

"parallel processor (n.) An integrated circuit that can perform different operations simultaneously. The Dictionary of Multimedia, 4th Ed. (2005) at 317-18.

"pixel (pel, picture element) (n.) An abbreviation of picture element; the smallest raster display element represented as a screen coordinate with a specified color and intensity level. Picture resolution is measured by the number of pixels used to create an image." The Dictionary of Multimedia, 4th Ed. (2005) at 317-18.

"parallel processing . . . A computer performs two or more tasks simultaneously. This contrasts with multitasking in which the computer works fast and gives the impression of performing several tasks at once." Newton's Telecom Dictionary, 23rd Ed. (2007) at 694.

"luminance The measurable, luminous intensity of a video signal." Newton's Telecom Dictionary, 23rd Ed. (2007) at 571.

"pixel Picture Element. The smallest unit of area of a video screen image that can be turned on or off, or varied in intensity." Newton's Telecom Dictionary, 23rd Ed. (2007) at 718.

| "luminance: The measured intensity from a portion of a scene." Dictionary of Computer Vision and Image Processing (2005) at 165. |
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| "pixel: The intensity values of a digital image are specified at the locations of a discrete rectangular grid; each local is a pixel." Dictionary of Computer Vision and Image Processing (2005) at 218-220. |
| ARM Mali-T600 Series GPU OpenCL Version 2.0 Developer Guide (2012). |
| Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '858 Patent. A summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's |
| Disclosures as Exhibit B. |

7,730,507 Patent:

| Term | Preliminary Construction | Extrinsic Evidence |
|--|-----------------------------------|--|
| "a first controller[/sub-control circuit]" | Not governed by 35 U.S.C. §112(6) | "controller (n.) 1. In computer hardware, a processing component that manages the |
| (Claim 1/2) | Plain and ordinary meaning. | flow of data between the computer and peripheral devices." The Dictionary of Multimedia, 4th Ed. (2005) at 94. |
| | | "Control circuitry Electric circuits within a computer or peripheral that regulate its operation." <i>See</i> A Dictionary of Computing, Sixth Edition, by Oxford Press, 2008 at 111 |
| | | "Controller a device that other devices rely on for access to a computer subsystem." <i>See</i> Microsoft Computer Dictionary, Fifth Edition, 2002, at 128. |
| | | "Controller a device that controls a functional element with a computer system." Chambers Dictionary of Science and Technology, 2007 at 272. |
| | | "Controller a unit that directs the operation of a subsystem within a computer." Comprehensive Dictionary of Electrical Engineering, Second Edition, 2005 at 148. |

| | | Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '507 Patent. A summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |
|---|---|---|
| "a second controller[/main control circuit]" (Claim 1/2) | Not governed by 35 U.S.C. §112(6) Plain and ordinary meaning. | "controller (n.) 1. In computer hardware, a processing component that manages the flow of data between the computer and peripheral devices." The Dictionary of Multimedia, 4th Ed. (2005) at 94. "Control circuitry Electric circuits within a computer or peripheral that regulate its operation." See A Dictionary of Computing, Sixth Edition, by Oxford Press, 2008 at 111 "Controller a device that other devices rely on for access to a computer subsystem." See Microsoft Computer Dictionary, Fifth Edition, 2002, at 128. "Controller a device that controls a functional element with a computer system." Chambers Dictionary of Science and Technology, 2007 at 272. |

| | | "Controller a unit that directs the operation of a subsystem within a computer." Comprehensive Dictionary of Electrical Engineering, Second Edition, 2005 at 148. Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '507 Patent. A summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |
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| "wherein the/[a] waiting condition [] in which an image is not displayed after stopping a supply of the electric power to the display portion, is controlled by the first controller/[sub-control circuit], so as to be placeable into either of a first waiting condition or a second waiting condition" (Claim 1/2) | Plain and ordinary meaning. | "controller (n.) 1. In computer hardware, a processing component that manages the flow of data between the computer and peripheral devices." The Dictionary of Multimedia, 4th Ed. (2005) at 94. "Control circuitry Electric circuits within a computer or peripheral that regulate its operation." See A Dictionary of Computing, Sixth Edition, by Oxford Press, 2008 at 111 "Controller a device that other devices rely on for access to a computer subsystem." See Microsoft Computer Dictionary, Fifth Edition, 2002, at 128. |

| "Controller a device that controls a functional element with a computer system." Chambers Dictionary of Science and Technology, 2007 at 272. |
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| "Controller a unit that directs the operation of a subsystem within a computer." Comprehensive Dictionary of Electrical Engineering, Second Edition, 2005 at 148. |
| Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '507 Patent. A summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |

7,760,213 Patent:

| Term | Preliminary Construction | Extrinsic Evidence |
|---|-----------------------------------|---|
| "a contrast adjusting unit" | Not governed by 35 U.S.C. §112(6) | "contrast (i) difference between black and white tones or between colours." |
| (Claims 1/2) | Plain and ordinary meaning. | Dictionary of Multimedia, 3rd Ed. (2002) at 36. |
| Full term: "a contrast adjusting unit to | | at 30. |
| adjust the contrast of the video image by | | "contrast: 1) The difference in brightness |
| controlling the gain of the video signal | | values between two structures, such as |
| based on a maximum luminance level | | regions or pixels." Dictionary of |
| information and an average luminance | | Computer Vision and Image Processing |
| level information of the video signal" | | (2005), at 58. |
| | | "contrast a difference between black |
| | | and white or between colours." Dictionary |
| | | of Computing, 4th Ed. (2002) at 87. |
| | | "contrast The degree of difference |
| | | between light and dark extremes of color |
| | | on a monitor or on printer output." |
| | | Microsoft Computer Dictionary, 5th Ed. |
| | | (2002) at 127. |
| | | "contrast (n.) The range between the |
| | | darkest and brightest components in an |
| | | image. Displays often provide hardware |
| | | adjustments for controlling contrast |
| | | Adjusting contrast in a selective manner |
| | | can make relatively light or dark areas of |
| | | an image visible while increasing detail." |

| | | The Dictionary of Computing & Digital Media (1999) at 68. Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '213 Patent. A summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |
|---|-----------------------------|---|
| "controlling the gain of the video signal based on a maximum luminance level information and an average luminance level information of the video signal" (Claim 1) | Plain and ordinary meaning. | "gain increase or becoming larger; amount by which a signal amplitude is changed as it passes through a circuit, usually given as a ratio of output input amplitude." Dictionary of Multimedia, 3rd Ed. (2002) at 100. |
| | | "gain increase or becoming larger; amount by which a signal amplitude is changed as it passes through a circuit, usually given as a ratio of output to input amplitude." Dictionary of Computing, 4th Ed. (2002) at 158. |
| | | "luminance part of a video signal or image that defines the brightness at each point." Dictionary of Multimedia, 3rd Ed. (2002) at 137. |

"luminance: The measures intensity from a portion of a scene." Dictionary of Computer Vision and Image Processing (2005), at 165. "luminance *noun* part of a video signal or image that defines the brightness at each point." Dictionary of Computing, 4th Ed. (2002) at 218. "luminance (n.) Degree of brightness or intensity. One of the three image characteristics coded in a component video signal (represented by the letter Y) and measured in lux or foot-candles. Luminance is the black-and-white portion of a video signal. The other two components of a video signal are the red and blue chroma factors." The Dictionary of Multimedia, 4th Ed. (2005) at 265. "luminance The measurable, luminous intensity of a video signal." Newton's Telecom Dictionary, 23rd Ed. (2007) at 571. "luminance: The measured intensity from a portion of a scene." Dictionary of Computer Vision and Image Processing (2005) at 165. "video signal n. The signal sent from a video adapter or other video source to a

raster display. The signal can include

| "a black level extension unit" | Not governed by 35 U.S.C. §112(6) | horizontal and vertical synchronization signals, as well as image information." Microsoft Computer Dictionary, 5th Ed. (2002) at 552. Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '213 Patent. A summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. "black level level of a video signal that |
|---|-----------------------------------|--|
| (Claims 1/5) Full term: "a black level extension unit to perform black level extension processing for the video signal," | Plain and ordinary meaning. | represents absolutely no light: total blackness." Dictionary of Multimedia, 3rd Ed. (2002) at 36. "black level The lowest luminance level that can occur in video or television transmission and which, when viewed on a monitor, appears as the color 'black.' Newton's Telecom Dictionary, 18th Ed. (2002) at 101. Maxell hereby identifies William Bohannon as an expert witness who will |
| | | offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '213 Patent. A |

| | | summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |
|---|-----------------------------|--|
| "based on the average luminance level information of the video signal" (Claim 5) | Plain and ordinary meaning. | "luminance part of a video signal or image that defines the brightness at each point." Dictionary of Multimedia, 3rd Ed. (2002) at 137. |
| Full term: "wherein the black level extension unit performs the black level extension processing based on the average luminance level information of the video signal." | | "luminance (n.) Degree of brightness or intensity. One of the three image characteristics coded in a component video signal (represented by the letter Y) and measured in lux or foot-candles. Luminance is the black-and-white portion of a video signal. The other two components of a video signal are the red and blue chroma factors." The Dictionary of Multimedia, 4th Ed. (2005) at 265. |
| | | "luminance: The measures intensity from a portion of a scene." Dictionary of Computer Vision and Image Processing (2005), at 165. |
| | | "luminance The measurable, luminous intensity of a video signal." Newton's Telecom Dictionary, 23rd Ed. (2007) at 571. |
| | | "luminance: The measured intensity from a portion of a scene." Dictionary of |

| Computer Vision and Image Processing (2005) at 165. "black level The lowest luminance level that can occur in video or television transmission and which, when viewed on a monitor, appears as the color 'black.' |
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| Newton's Telecom Dictionary, 18th Ed. (2002) at 101. "black level The lowest luminance level |
| that can occur in video or television transmission and which, when viewed on a monitor, appears as the color 'black.' Newton's Telecom Dictionary, 18th Ed. (2002) at 101. |
| Maxell hereby identifies William Bohannon as an expert witness who will offer opinion testimony (either live or by declaration) in support of Maxell's proposed constructions of the disputed claim limitations for the '213 Patent. A summary of Mr. Bohannon's likely opinion testimony, along with Mr. Bohannon's CV, is attached to Maxell's Disclosures as Exhibit B. |