EXHIBIT 1

G3-G5

Appendix G3
Defendants and Counterclaimants' Invalidity Contentions
Advanced Micro Devices, Inc., et al., v. Samsung Electronics Co., Ltd., et al., Case No. 3:08-CV-0986-SI

U.S. Patent No. 6,784,879 Invalidity Chart: Microsoft Windows 95 ("Windows 95") for use with an IBM Aptiva Computer

All asserted claims are anticipated by Windows 95 used with an IBM Aptiva Computer and/or are rendered obvious by it, either alone or in combination with other prior art described below and/or listed in Section I of Defendants' and Counterclaimants' Preliminary Invalidity Contentions and/or through modifications described below. Nothing in this invalidity chart should be construed as signifying or suggesting Defendants and Counterclaimants' adoption of or acquiescence in any claim scope and/or claim construction positions taken by Plaintiffs and Counterdefendants in this litigation.

One of ordinary skill in the art would have been motivated to use Windows 95 with an IBM Aptiva because the IBM Aptiva Handbook expressly instructs the user to use the IBM Aptiva with Windows 95 and because the IBM Aptiva was sold together with Windows 95 (*see, e.g.* IBM Aptiva Handbook at 31).

U.S. Patent No. 6,784,879	
Claim 11	
Claim limitation	**Windows 95 for use with IBM Aptiva**
11. A video graphics processor comprising:	Assuming for present purposes (without admitting) that the preamble is a claim limitation, the IBM Aptiva was sold containing either an IBM 80486 processor or an Intel Pentium processor.
a processing unit; and	The IBM Aptiva was sold containing either an IBM 80486 processor or an Intel Pentium processor.
memory that stores programming instructions that, when read by the processing unit, causes the processing unit to	The IBM Aptiva has a hard disk drive that stores programming instructions, including Windows 95, which are loaded into RAM memory prior to being read and executed by the processor.

U.S. Patent No. 6,784,879	
(a) provide a video control icon that is visible on the display, wherein the video control icon relates to live video that is being presented as a background on the display;	The video graphics processor provides a video control icon that is visible on the display and that relates to live video that is being presented as the background on the display. Windows 95 also had the capability of showing live video that could be set as the background image of the display. For example, as shown in figure 1, below, the volume icon is a video control icon that relates to the volume for the live video, which has been set as the background display:  **Figure 1**
(b) detect selection	The video graphics processor in the IBM Aptiva detects selection of the video control icon when the mouse cursor

U.S. Patent No. 6,784,879	
of the video control icon;	clicks on the icon.
(c) provide a control panel while the live video remains in the background	The video graphics processor in the IBM Aptiva provides a control panel of sound controls, including volume, as shown in Figure 2, below:  **Figure 2**

U.S. Patent No. 6,784,879	
and an application that was in focus remains in focus when the video control icon has been selected,	The application that was in focus on the display -- e.g., the clock -- remains in focus when the video control icon has been selected, as shown in Figure 2, above.
wherein the control panel includes at least one of the following: a volume adjust icon, a mute icon, a pause icon, a rewind icon, and a fast-forward icon.	The control panel includes several volume adjust icons, including volume, as shown in Figure 2, above.
Claim 12	
The video graphics process of claim **11** further comprises,	See claim 11.
within the memory, programming instructions that, when read by the	The IBM Aptiva contains in its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to provide volume adjust icons as the control panel, including "volume," as shown in Figure 2, above.

U.S. Patent No. 6,784,879	
processing unit, causes the processing unit to provide, as the control panel, at least one of: volume adjust icon, mute icon, channel up icon, channel down icon, numerical channel display, and alpha-numeric channel display.	
Claim 13	
The video graphics process of claim 11 comprises,	See claim 11.
within the memory, programming instructions that, when read by the processing unit, causes the processing unit to remove the control	The IBM Aptiva has within its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to remove the control panel when another displayed element is selected. For example, when the background video is clicked upon, the control panel is removed. To the extent it is determined that this combination does not disclose this limitation, it would have been obvious to one of ordinary skill in the art to implement this feature in light of this combination, either alone or in combination with the Frox reference, the Mass Microsystems ColorSpace SE reference, the RCA ProScan reference, or the Sony Trinitron reference.

U.S. Patent No. 6,784,879	
panel when another displayed element is selected.	
Claim 14	
A video graphics processor comprising:	Assuming for present purposes (without admitting) that the preamble is a claim limitation, the IBM Aptiva was sold containing either an IBM 80486 processor or an Intel Pentium processor.
a processing unit; and	the IBM Aptiva was sold containing either an IBM 80486 processor or an Intel Pentium processor.
memory that stores programming instructions that, when read by the processing unit, causes the processing unit to (a) detect selection of a video control icon,	The IBM Aptiva stores in its hard drive and RAM memory programming instructions that cause the processing unit to detect selection of a video control icon, as shown in Figures 1 and 2, above.
wherein the video control icon relates to live video that is being presented as a background on a	The video control icon on the IBM Aptiva display, such as, for example, the volume icon, relate to the background video in that they control various attributes of the background video, including volume.

U.S. Patent No. 6,784,879	
display;	
(b) provide a control panel while the live video remain [sic] the background and an application that was in focus remains in focus when the video control icon has been selected; and	When the volume video control icon is selected, the processor provides a control panel while the live video remains in the background and the clock application that was in focus remains in focus, as shown in Figure 2, above.
(c) adjust at least one attribute of the live video based on an input received via the control panel, wherein the at least one attribute included: volume, mute, pause, rewind, and fast-forward.	The control panel receives input to adjust various attributes of the live video, including volume, as shown in Figure 2, above.

U.S. Patent No. 6,784,879	
Claim 15	
The video graphics processor of claim **14** further comprises,	See claim 14.
within the memory, programming instructions that, when read by the processing unit, causes the processing unit to adjust the at least one attribute by adjusting at least one of: volume, mute, channel up, and channel down.	The IBM Aptiva stores in its memory programming instructions from Windows 95 that, when read and then executed by the processing unit, allow for the adjustment of various attributes, including volume, as shown in Figure 2, above.
Claim 16	
The video graphics processor of claim **14** further comprises,	See claim 14.
within the	The IBM Aptiva has within its memory programming instructions that, when read and then executed by the

U.S. Patent No. 6,784,879	
memory, programming instructions that, when read by the processing unit, causes the processing unit to remove the control panel when another displayed element is selected.	processing unit, cause the processing unit to remove the control panel when another displayed element is selected. For example, when the background video is selected, the control panel is removed. To the extent it is determined that this combination does not disclose this limitation, it would have been obvious to one of ordinary skill in the art to implement this feature in light of this combination, either alone or in combination with the Frox reference, the Mass Microsystems ColorSpace SE reference, the RCA ProScan reference, or the Sony Trinitron reference.
Claim 17	
A digital storage device that stores programming instructions that, when read by a processing unit, causes the processing unit to provide control of background video, the digital storage device comprises:	Assuming for present purposes (without admitting) that the preamble is a claim limitation, the IBM Aptiva contains a digital storage device -- e.g., the hard drive and the RAM memory -- that stores programming instructions that, when read and then executed by the processing unit, cause the processing unit to provide control of background video.
first storage means for storing	Assuming for present purposes (without conceding) that the claimed first, second, and third storage means refer to regions of one or more storage devices and not to three separate and distinct memory devices, the IBM Aptiva has

U.S. Patent No. 6,784,879	
programming instructions that, when read by the processing unit, causes the processing unit to provide a video control icon that is visible on the display, wherein the video control icon relates to live video that is being presented as a background on a display;	memory for storing programming instructions (e.g., the hard drive and the RAM memory), which, when read and then executed by the processor, cause the processing unit to provide a video control icon that is visible on the display and that relates to live video that is being presented as a background display, as shown in Figure 1, above.
second storage means for storing programming instructions that, when read by the processing unit, causes the programming unit to detect selection of the video control icon; and	Assuming for present purposes (without conceding) that the claimed first, second, and third storage means refer to regions of one or more storage devices and not to three separate and distinct memory devices, the IBM Aptiva has memory for storing programming instructions (e.g., the hard drive and the RAM memory), which, when read and then executed by the processor, cause the processing unit to detect selection of the video control icon, as shown in Figure 2, above.

U.S. Patent No. 6,784,879	
third storage means for storing programming instructions that, when read by the processing unit, causes the processing unit to provide a control panel while the live video remains in the background and an application that was in focus remains in focus when the video control icon has been selected.	Assuming for present purposes (without conceding) that the claimed first, second, and third storage means refer to regions of one or more storage devices and not to three separate and distinct memory devices, the IBM Aptiva has memory for storing programming instructions (for example, the hard drive and the RAM memory), which, when read and then executed by the processor, cause the processing unit to provide the control panel while the live video remains in the background and the foreground application -- i.e., the clock display -- remains in focus when the video control icon has been selected, as shown in Figure 2, above.
Claim 18	
The digital storage device of claim **17** further comprises	See claim 17.
means for storing programming instructions that, when read by the processing unit,	The IBM Aptiva stores in its memory programming instructions from Windows 95 that, when read and then executed by the processing unit, provide a control panel that has icons allowing for the adjustment of various attributes, including volume, as shown in Figure 2, above.

U.S. Patent No. 6,784,879	
causes the processing unit to provide, as the control panel, at least one of: volume adjust icon, mute icon, pause icon, rewind icon, and fast-forward icon.	
Claim 19	
The digital storage device of claim 17 further comprises	See claim 17.
means for storing programming instructions that, when read by the processing unit, causes the processing unit to provide, as the control panel, at least on of: volume adjust icon, mute icon, channel up icon,	The IBM Aptiva stores in its memory programming instructions that, when read and then executed by the processing unit, provide a control panel that has icons allowing for the adjustment of various attributes, including volume, as shown in Figure 2, above.

U.S. Patent No. 6,784,879	
channel down icon, numerical channel display, and alpha-numeric channel display.	
Claim 20	
The digital storage device of claim 17 further comprises	See claim 17.
means for storing programming instructions that, when read by the processing unit, causes the processing unit to remove the control panel when another displayed element is selected.	The IBM Aptiva has within its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to remove the control panel when another displayed element is selected. For example, when the background video is selected, the control panel is removed. To the extent it is determined that this combination does not disclose this limitation, it would have been obvious to one of ordinary skill in the art to implement this feature in light of this combination, either alone or in combination with the Frox reference, the Mass Microsystems ColorSpace SE reference, the RCA ProScan reference, or the Sony Trinitron reference.
Claim 21	
A digital storage device that stores programming	Assuming for present purposes (without admitting) that the preamble is a claim limitation, the IBM Aptiva contains a digital storage device that stores programming instructions that, when read and then executed by the processing unit,

U.S. Patent No. 6,784,879	
instructions that, when read by a processing unit, causes the processing unit to provide control of background video, the digital storage device comprises:	cause the processing unit to provide control of background video.
first storage means for storing programming instructions that, when read by the processing unit, causes the processing unit to detect selection of a video control icon, wherein the video control icon relates to live video that is being presented as a background on a display;	Assuming for present purposes (without conceding) that the claimed first, second, and second storage means refer to regions of one or more storage devices and not to two separate and distinct memory devices, the IBM Aptiva has memory for storing programming instructions (e.g., the hard drive and the RAM memory), which, when read and then executed by the processor, cause the processing unit to detect selection of a video control icon that relates to live video that is being presented as a background display, as shown in Figures 1 and 2, above.
second storage means for storing	Assuming for present purposes (without conceding) that the claimed first, second, and second storage means refer to regions of one or more storage devices and not to two separate and distinct memory devices, the IBM Aptiva has

U.S. Patent No. 6,784,879	
programming instructions that, when read by the processing unit, causes the processing unit to provide a control panel while the live video remains in the background and an application that was in focus remains in focus when the video control icon has been selected; and	memory for storing programming instructions (e.g., the hard drive and the RAM memory), which, when read and then executed by the processing unit, cause the processing unit to provide a control panel while the live video remains in the background and while a foreground application -- i.e., the clock display -- remains in focus when the video control icon has been selected, as shown in Figure 2.
second storage means for storing programming instructions that, when read by the processing unit, causes the processing unit to adjust at least one attribute of the live video based on an input received via	Assuming for present purposes (without conceding) that the claimed first, second, and second storage means refer to regions of one or more storage devices and not to two separate and distinct memory devices, the IBM Aptiva has memory for storing programming instructions (e.g., the hard drive and the RAM memory), which, when read and then executed by the processing unit, cause the processing unit to adjust at least one attribute of the live video based on an input received via the control panel, as shown in Figure 2.

U.S. Patent No. 6,784,879	
the control panel.	
Claim 22	
The digital storage device of claim 21 further comprises	See claim 21.
means for storing programming instructions that, when read by the processing unit, causes the processing unit to adjust the at least one attribute by adjusting at least one of: volume, mute, pause, rewind, and fast-forward.	The IBM Aptiva stores in its memory programming instructions from Windows 95 that, when read and then executed by the processing unit, cause the processing unit to adjust various attributes of the live video, including volume, as shown in Figure 2, above.
Claim 23	
The digital storage device of claim 21 further comprises	See claim 21.
means for storing	The IBM Aptiva stores in its memory programming instructions that, when read and then executed by the processing

U.S. Patent No. 6,784,879	
programming instructions that, when read by the processing unit, causes the processing unit to adjust the at least one attribute by adjusting at least one of: volume, mute, channel up, and channel down.	unit, cause the processing unit to adjust various attributes of the live video, including volume, as shown in Figure 2, above.
Claim 24	
The digital storage device of claim 21 further comprises	See claim 21.
means for storing programming instructions that, when read by the processing unit, causes the processing unit to remove the control panel when another displayed element is	The IBM Aptiva has within its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to remove the control panel when another displayed element is selected. For example, when the background video is selected, the control panel is removed. To the extent it is determined that this combination does not disclose this limitation, it would have been obvious to one of ordinary skill in the art to implement this feature in light of this combination, either alone or in combination with the Frox reference, the Mass Microsystems ColorSpace SE reference, the RCA ProScan reference, or the Sony Trinitron reference.

U.S. Patent No. 6,784,879	
selected.	

Appendix G4
Defendants and Counterclaimants' Invalidity Contentions
Advanced Micro Devices, Inc., et al., v. Samsung Electronics Co., Ltd., et al., Case No. 3:08-CV-0986-SI

U.S. Patent No. 6,784,879 Invalidity Chart: Sony Trinitron Color Television KV-32V16 ("Sony Trinitron")

All asserted claims are anticipated by the Sony Trinitron and/or are rendered obvious by it, either alone or in combination with other prior art described below and/or listed in Section I of Defendants' and Counterclaimants' Preliminary Invalidity Contentions and/or through modifications described below. Nothing in this invalidity chart should be construed as signifying or suggesting Defendants and Counterclaimants' adoption of or acquiescence in any claim scope and/or claim construction positions taken by Plaintiffs and Counterdefendants in this litigation.

U.S. Patent No. 6,784,879	
Claim 11	
Claim limitation	**Sony Trinitron**
11. A video graphics processor comprising:	Assuming for present purposes (without admitting) that the preamble is a claim limitation, the Sony Trinitron contains a video graphics processor that allows it to generate on-screen user menus, icons, and control panels. *See, e.g.,* Sony Trinitron Color TV Service Manual ("Service Manual") at pg. 49.
a processing unit; and	The Sony Trinitron contains a processing unit that performs various functions, including the generation of on-screen menus, icons, and control panels. *See, e.g.,* Service Manual at pg. 49.
memory that stores programming instructions that, when read by the processing unit, causes the processing unit to	The Sony Trinitron contains memory that stores programming instructions for performing various functions, including the generation of on-screen menus, icons, and control panels. *See, e.g.,* Service Manual at pg. 29.
(a) provide a video control icon that is visible on the	The Sony Trinitron provides a video control icon that is visible on the display and that relates to live video that is being presented as the background on the display. As shown in Figure 1, below, the "VIDEO" icon and the "AUDIO" icon are examples of the claimed "video control icon":

U.S. Patent No. 6,784,879	
display, wherein the video control icon relates to live video that is being presented as a background on the display;	 **Figure 1** As a further example, as shown in the Figure 2, below, the "TREBLE," "BASS," and "BALANCE" icons are examples of the claimed "video control icon.":

U.S. Patent No. 6,784,879

Figure 2

These video control icons relate to the background video in that they control various attributes of the background video.

U.S. Patent No. 6,784,879	
	To the extent any of the above identified icons are determined not to be "video control icons" as that term is construed, providing "video control icons" would have been obvious in light of the Sony Trinitron, either alone or in combination with the Microsoft Windows 95 reference, the Mass Microsystems Color Space SE combination, and or the prior art patents cited in Appendix G6.
(b) detect selection of the video control icon;	The video graphics processor in the Sony Trinitron detects selection of the video control icon "AUDIO," as shown in Figures 1 and 2, above. As a further example, the video graphics processor in the Sony Trinitron detects selection of the video control icons "TREBLE," "BASS," and "BALANCE," as shown in Figure 2, above and in Figure 3, below:

U.S. Patent No. 6,784,879	
	 Figure 3
(c) provide a control panel while the live video remains in	The video graphics processor in the Sony Trinitron provides a control panel of sound controls, including "TREBLE," "BASS," and "BALANCE," as shown in Figure 2, above. As a further example, the Sony Trinitron provides a control panel for "TREBLE" when the "TREBLE" icon is

U.S. Patent No. 6,784,879	
the background	selected, as shown in Figure 3, above.
and an application that was in focus remains in focus when the video control icon has been selected,	The application that was in focus on the Sony Trinitron display -- i.e., the picture-in-picture window -- remains in focus when the video control icon has been selected, as shown in Figures 2 and 3, above. To the extent it is determined that the application that was in focus on the Sony Trinitron is determined not to remain in focus, implementing such a feature would have been obvious to one of ordinary skill in the art in light of the Sony Trinitron, either alone or in combination with the RCA ProScan reference, the Windows 95 prior art reference, or the Mass Microsystems Color Space SE combination.
wherein the control panel includes at least one of the following: a volume adjust icon, a mute icon, a pause icon, a rewind icon, and a fast-forward icon.	The control panel on the Sony Trinitron includes several volume adjust icons, including "TREBLE," "BASS," and "BALANCE," as shown in Figure 2, above. To the extent, the "TREBLE," "BASS," and "BALANCE" icons are determined not to be "volume adjust icons," it would have been obvious to one of ordinary skill in the art to modify this reference to provide a "volume adjust icon," or to combine this reference with either the FroxSystem prior art reference, the RCA ProScan Television PS35680 reference, or the Microsoft Windows 95 reference to provide a "volume adjust icon."
Claim 12	
The video graphics process of claim **11** further comprises,	See claim 11.
within the memory,	The Sony Trinitron contains in its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to provide volume adjust icons, including "TREBLE," "BASS," and

U.S. Patent No. 6,784,879	
programming instructions that, when read by the processing unit, causes the processing unit to provide, as the control panel, at least one of: volume adjust icon, mute icon, channel up icon, channel down icon, numerical channel display, and alpha-numeric channel display.	"BALANCE," as shown in Figure 2, above. To the extent, the "TREBLE," "BASS," and "BALANCE" icons are determined not to be "volume adjust icons," it would have been obvious to one of ordinary skill in the art to modify this reference to provide a "volume adjust icon," or to combine this reference with either the FroxSystem prior art reference, the RCA ProScan Television PS35680 reference, or the Microsoft Windows 95 reference to provide a "volume adjust icon."
Claim 13	
The video graphics process of claim 11 comprises,	See claim 11.
within the memory, programming instructions that, when read by the processing unit,	The Sony Trinitron has within its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to remove the control panel when another displayed element is selected. For example, when "TREBLE" is selected, the control panel is removed, as shown in Figure 3, above. To the extent it is determined that the Sony Trinitron does not disclose this limitation, it would have been obvious to one of ordinary skill in the art to implement this feature in light of the Sony Trinitron, either alone or in combination

U.S. Patent No. 6,784,879	
causes the processing unit to remove the control panel when another displayed element is selected.	with the Frox reference, the RCA ProScan reference, or the Mass Microsystems ColorSpace SE reference.
Claim 14	
A video graphics processor comprising:	Assuming for present purposes (without admitting) that the preamble is a claim limitation, the Sony Trinitron has a video graphics processor that allows it to generate on-screen user menus, icons, and control panels. *See, e.g.,* Service Manual at pg. 49.
a processing unit; and	The Sony Trinitron contains a processing unit that performs various functions, including the generation of on-screen menus, icons, and control panels. *See, e.g.,* Service Manual at pg. 49.
memory that stores programming instructions that, when read by the processing unit, causes the processing unit to (a) detect selection of a video control icon,	The Sony Trinitron stores in its memory programming instructions that cause the processing unit to detect selection of a video control icon, as shown in Figures 2 and 3, above. *See also, e.g.*, Service Manual at pg. 29. To the extent any of the above identified icons are determined not to be "video control icons" as that term is construed, providing "video control icons" would have been obvious in light of the Sony Trinitron, either alone or in combination with the Microsoft Windows 95 reference, the Mass Microsystems Color Space SE combination, and or the prior art patents cited in Appendix G6.

U.S. Patent No. 6,784,879	
wherein the video control icon relates to live video that is being presented as a background on a display;	The video control icons on the Sony Trinitron, such as, for example, "AUDIO" and "BALANCE," relate to the background video in that they control various attributes of the background video.
(b) provide a control panel while the live video remain [sic] the background and an application that was in focus remains in focus when the video control icon has been selected; and	When the "AUDIO" video control icon is selected, the Sony Trinitron provides a control panel while the live video remains in the background and the picture-in-picture application that was in focus remains in focus, as shown in Figures 1 and 2, above. As a further example, when the "TREBLE" video control icon is selected, the Sony Trinitron provides a control panel while the live video remains in the background and the picture-in-picture application that was in focus remains in focus, as shown in Figures 2 and 3, above. To the extent it is determined that the application that was in focus on the Sony Trinitron is determined not to remain in focus, implementing such a feature would have been obvious to one of ordinary skill in the art in light of the Sony Trinitron, either alone or in combination with the RCA ProScan reference, the Windows 95 prior art reference, or the Mass Microsystems Color Space SE combination.
(c) adjust at least one attribute of the live video based on an input received via the control panel, wherein the at least one attribute included: volume, mute, pause,	The control panel on the Sony Trinitron receives input to adjust various attributes of the live video, including volume for treble and bass registers, and volume balance between channels, as shown in Figures 2 and 3, above. To the extent, the "TREBLE," "BASS," and "BALANCE" icons are determined not to be volume attributes, it would have been obvious to one of ordinary skill in the art to modify this reference to provide a volume control, or to combine this reference with either the FroxSystem prior art reference, the RCA ProScan Television PS35680 reference, or the Microsoft Windows 95 reference to provide a volume adjust icon.

U.S. Patent No. 6,784,879	
rewind, and fast-forward.	
Claim 15	
The video graphics processor of claim **14** further comprises,	See claim 14.
within the memory, programming instructions that, when read by the processing unit, causes the processing unit to adjust the at least one attribute by adjusting at least one of: volume, mute, channel up, and channel down.	The Sony Trinitron stores in its memory programming instructions that, when read and then executed by the processing unit, allow for the adjustment of various attributes, including treble, bass, and balance, as shown in Figure 2, above. *See also, e.g.*, Service Manual at pp. 29, 49. To the extent, the "TREBLE," "BASS," and "BALANCE" icons are determined not to be volume attributes, it would have been obvious to one of ordinary skill in the art to modify this reference to provide a volume control, or to combine this reference with either the FroxSystem prior art reference, the RCA ProScan Television PS35680 reference, or the Microsoft Windows 95 reference to provide a volume adjust icon.
Claim 16	
The video graphics processor of claim **14** further	See claim 14.

U.S. Patent No. 6,784,879	
comprises,	
within the memory, programming instructions that, when read by the processing unit, causes the processing unit to remove the control panel when another displayed element is selected.	The Sony Trinitron has within its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to remove the control panel when another displayed element is selected. For example, when "TREBLE" is selected, the control panel is removed, as shown in Figure 3, above. To the extent it is determined that the Sony Trinitron does not disclose this limitation, it would have been obvious to one of ordinary skill in the art to implement this feature in light of the Sony Trinitron, either alone or in combination with the Frox reference, the RCA ProScan reference, or the Mass Microsystems ColorSpace SE reference.
Claim 17	
A digital storage device that stores programming instructions that, when read by a processing unit, causes the processing unit to provide control of background video, the digital storage	Assuming for present purposes (without admitting) that the preamble is a claim limitation, the Sony Trinitron contains a digital storage device that stores programming instructions that, when read and then executed by the processing unit, cause the processing unit to provide control of background video. *See, e.g.*, Service Manual at 29.

U.S. Patent No. 6,784,879	
device comprises:	
first storage means for storing programming instructions that, when read by the processing unit, causes the processing unit to provide a video control icon that is visible on the display, wherein the video control icon relates to live video that is being presented as a background on a display;	Assuming for present purposes (without conceding) that the claimed first, second, and third storage means refer to regions of one or more storage devices and not to three separate and distinct memory devices, the Sony Trinitron has memory for storing programming instructions that, when read and then executed by the processor, cause the processing unit to provide a video control icon that is visible on the display and that relates to live video that is being presented as a background display, as shown in Figures 1 and 2, above. *See also, e.g.*, Service Manual at pp. 29, 49. To the extent any of the above identified icons are determined not to be "video control icons" as that term is construed, providing "video control icons" would have been obvious in light of the Sony Trinitron, either alone or in combination with the Microsoft Windows 95 reference, the Mass Microsystems Color Space SE combination, and or the prior art patents cited in Appendix G6.
second storage means for storing programming instructions that, when read by the processing unit, causes the programming unit to detect selection	Assuming for present purposes (without conceding) that the claimed first, second, and third storage means refer to regions of one or more storage devices and not to three separate and distinct memory devices, the Sony Trinitron has memory for storing programming instructions that, when read and then executed by the processor, cause the processing unit to detect selection of the video control icon, as shown in Figures 2 and 3, above. *See also, e.g.*, Service Manual at pp. 29, 49.

U.S. Patent No. 6,784,879	
of the video control icon; and	
third storage means for storing programming instructions that, when read by the processing unit, causes the processing unit to provide a control panel while the live video remains in the background and an application that was in focus remains in focus when the video control icon has been selected.	Assuming for present purposes (without conceding) that the claimed first, second, and third storage means refer to regions of one or more storage devices and not to three separate and distinct memory devices, the Sony Trinitron has memory for storing programming instructions that, when read and then executed by the processor, cause the processing unit to provide the control panel while the live video remains in the background and the foreground application -- i.e., the picture-in-picture display -- remains in focus when the video control icon has been selected, as shown in Figures 1, 2, and 3, above. *See also* Service Manual at pp. 29, 49. To the extent it is determined that the application that was in focus on the Sony Trinitron is determined not to remain in focus, implementing such a feature would have been obvious to one of ordinary skill in the art in light of the Sony Trinitron, either alone or in combination with the RCA ProScan reference, the Windows 95 prior art reference, or the Mass Microsystems Color Space SE combination.
Claim 18	
The digital storage device of claim **17** further comprises	See claim 17.
means for storing programming	The Sony Trinitron stores in its memory programming instructions that, when read and then executed by the processing unit, provide a control panel that has icons allowing for the adjustment of various attributes, including

U.S. Patent No. 6,784,879	
instructions that, when read by the processing unit, causes the processing unit to provide, as the control panel, at least one of: volume adjust icon, mute icon, pause icon, rewind icon, and fast-forward icon.	treble, bass, and balance, as shown in Figure 2, above. To the extent, the "TREBLE," "BASS," and "BALANCE" icons are determined not to be "volume adjust icons," it would have been obvious to one of ordinary skill in the art to modify this reference to provide a "volume adjust icon," or to combine this reference with either the FroxSystem prior art reference, the RCA ProScan Television PS35680 reference, or the Microsoft Windows 95 reference to provide a "volume adjust icon."
Claim 19	
The digital storage device of claim 17 further comprises	See claim 17.
means for storing programming instructions that, when read by the processing unit, causes the processing unit to provide, as the control panel, at least on of:	The Sony Trinitron stores in its memory programming instructions that, when read and then executed by the processing unit, provide a control panel that has icons allowing for the adjustment of various attributes, including balance, treble, and bass, as shown in Figure 2, above. To the extent, the "TREBLE," "BASS," and "BALANCE" icons are determined not to be "volume adjust icons," it would have been obvious to one of ordinary skill in the art to modify this reference to provide a "volume adjust icon," or to combine this reference with either the FroxSystem prior art reference, the RCA ProScan Television PS35680 reference, or the Microsoft Windows 95 reference to provide a "volume adjust icon."

U.S. Patent No. 6,784,879	
volume adjust icon, mute icon, channel up icon, channel down icon, numerical channel display, and alpha-numeric channel display.	
Claim 20	
The digital storage device of claim 17 further comprises	See claim 17.
means for storing programming instructions that, when read by the processing unit, causes the processing unit to remove the control panel when another displayed element is selected.	The Sony Trinitron has within its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to remove the control panel when another displayed element is selected. For example, when "TREBLE" is selected, the control panel is removed, as shown in Figure 3. To the extent it is determined that the Sony Trinitron does not disclose this limitation, it would have been obvious to one of ordinary skill in the art to implement this feature in light of the Sony Trinitron, either alone or in combination with the Frox reference, the RCA ProScan reference, or the Mass Microsystems ColorSpace SE reference.

U.S. Patent No. 6,784,879	
Claim 21	
A digital storage device that stores programming instructions that, when read by a processing unit, causes the processing unit to provide control of background video, the digital storage device comprises:	Assuming for present purposes (without admitting) that the preamble is a claim limitation, the Sony Trinitron contains a digital storage device that stores programming instructions that, when read and then executed by the processing unit, cause the processing unit to provide control of background video. *See, e.g.*, Service Manual at 49.
first storage means for storing programming instructions that, when read by the processing unit, causes the processing unit to detect selection of a video control icon, wherein the video control icon relates to live video that is being presented as a	Assuming for present purposes (without conceding) that the claimed first, second, and second storage means refer to regions of one or more storage devices and not to two separate and distinct memory devices, the Sony Trinitron has memory for storing programming instructions that, when read and then executed by the processor, cause the processing unit to detect selection of a video control icon that relates to live video that is being presented as a background display, as shown in Figures 1 and 2, above. *See also, e.g.*, Service Manual at 29, 49. To the extent any of the above identified icons are determined not to be "video control icons" as that term is construed, providing "video control icons" would have been obvious in light of the Sony Trinitron, either alone or in combination with the Microsoft Windows 95 reference, the Mass Microsystems Color Space SE combination, and or the prior art patents cited in Appendix G6.

U.S. Patent No. 6,784,879	
background on a display;	
second storage means for storing programming instructions that, when read by the processing unit, causes the processing unit to provide a control panel while the live video remains in the background and an application that was in focus remains in focus when the video control icon has been selected; and	Assuming for present purposes (without conceding) that the claimed first, second, and second storage means refer to regions of one or more storage devices and not to two separate and distinct memory devices, the Sony Trinitron has memory for storing programming instructions that, when read and then executed by the processing unit, cause the processing unit to provide a control panel while the live video remains in the background and while a foreground application -- i.e., the picture-in-picture window -- remains in focus when the video control icon has been selected, as shown in Figures 1, 2, and 3, above. *See also, e.g.*, Service Manual at pp. 29, 49. To the extent it is determined that the application that was in focus on the Sony Trinitron is determined not to remain in focus, implementing such a feature would have been obvious to one of ordinary skill in the art in light of the Sony Trinitron, either alone or in combination with the RCA ProScan reference, the Windows 95 prior art reference, or the Mass Microsystems Color Space SE combination.
second storage means for storing programming instructions that, when read by the processing unit, causes the processing unit to	Assuming for present purposes (without conceding) that the claimed first, second, and second storage means refer to regions of one or more storage devices and not to two separate and distinct memory devices, the Sony Trinitron has memory for storing programming instructions that, when read and then executed by the processing unit, cause the processing unit to adjust at least one attribute of the live video based on an input received via the control panel, as shown in Figures 2 and 3, above. *See also, e.g.*, Service Manual at pp. 29, 49.

U.S. Patent No. 6,784,879	
adjust at least one attribute of the live video based on an input received via the control panel.	
Claim 22	
The digital storage device of claim 21 further comprises	See claim 21.
means for storing programming instructions that, when read by the processing unit, causes the processing unit to adjust the at least one attribute by adjusting at least one of: volume, mute, pause, rewind, and fast-forward.	The Sony Trinitron stores in its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to adjust various attributes of the live video, including treble, bass, and volume, as shown in Figure 2, above. To the extent, the "TREBLE," "BASS," and "BALANCE" icons are determined not to be volume attributes, it would have been obvious to one of ordinary skill in the art to modify this reference to provide a volume control, or to combine this reference with either the FroxSystem prior art reference, the RCA ProScan Television PS35680 reference, or the Microsoft Windows 95 reference to provide a volume adjust icon.

U.S. Patent No. 6,784,879	
Claim 23	
The digital storage device of claim 21 further comprises	See claim 21.
means for storing programming instructions that, when read by the processing unit, causes the processing unit to adjust the at least one attribute by adjusting at least one of: volume, mute, channel up, and channel down.	The Sony Trinitron stores in its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to adjust various attributes of the live video, including treble, bass, and balance, as shown in Figure 2, above. To the extent, the "TREBLE," "BASS," and "BALANCE" icons are determined not to be volume attributes, it would have been obvious to one of ordinary skill in the art to modify this reference to provide a volume control, or to combine this reference with either the FroxSystem prior art reference, the RCA ProScan Television PS35680 reference, or the Microsoft Windows 95 reference to provide a volume adjust icon.
Claim 24	
The digital storage device of claim 21 further comprises	See claim 21.
means for storing programming instructions that, when read by the	The Sony Trinitron has within its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to remove the control panel when another displayed element is selected. For example, when "TREBLE" is selected, the control panel is removed, as shown in Figure 3, above.

U.S. Patent No. 6,784,879	
processing unit, causes the processing unit to remove the control panel when another displayed element is selected.	To the extent it is determined that the Sony Trinitron does not disclose this limitation, it would have been obvious to one of ordinary skill in the art to implement this feature in light of the Sony Trinitron, either alone or in combination with the Frox reference, the RCA ProScan reference, or the Mass Microsystems ColorSpace SE reference.

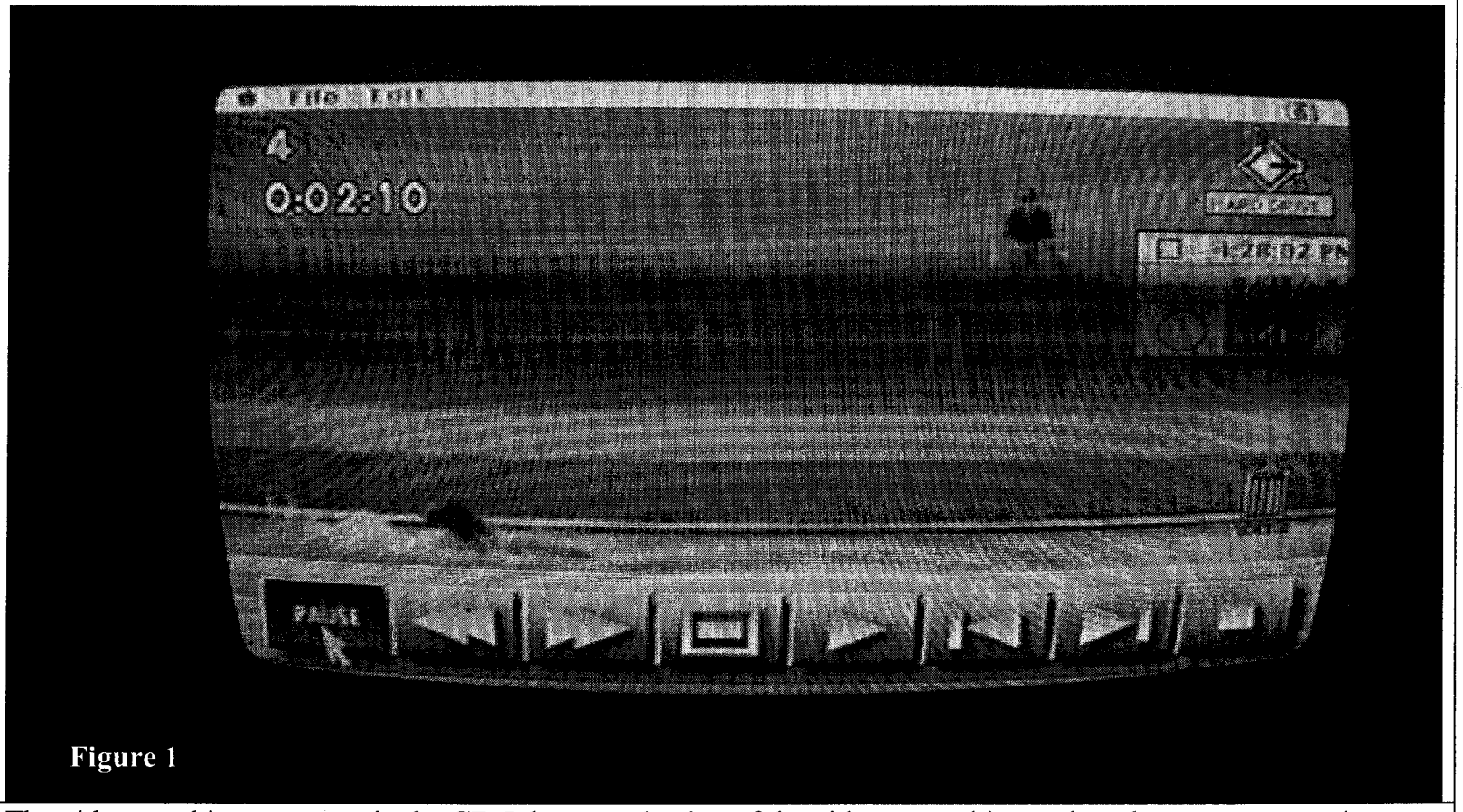
Appendix G5
Defendants and Counterclaimants' Invalidity Contentions
Advanced Micro Devices, Inc., et al., v. Samsung Electronics Co., Ltd., et al., Case No. 3:08-CV-0986-SI

U.S. Patent No. 6,784,879 Invalidity Chart: Mass Microsystems ColorSpace SE ("ColorSpace") for use with an Apple Macintosh Plus Computer ("Mac Plus") and a Magnavox CD-Interactive Player ("CD-I")

All asserted claims are anticipated by the ColorSpace for use with a Mac Plus and CD-I and/or are rendered obvious by it, either alone or in combination with other prior art described below and/or listed in Section I of Defendants' and Counterclaimants' Preliminary Invalidity Contentions and/or through modifications described below. Nothing in this invalidity chart should be construed as signifying or suggesting Defendants and Counterclaimants' adoption of or acquiescence in any claim scope and/or claim construction positions taken by Plaintiffs and Counterdefendants in this litigation.

One of ordinary skill in the art would have been motivated to use this combination together because the ColorSpace was designed for use with Apple computers and with video players such as CD-I's.

U.S. Patent No. 6,784,879	
Claim 11	
Claim limitation	**ColorSpace for use with a Mac Plus and CD-I**
11. A video graphics processor comprising:	Assuming for present purposes (without admitting) that the preamble is a claim limitation, the Mac Plus was sold containing a Motorola 68000 processor. The CD-I was sold containing a SCC68070 processor.
a processing unit; and	The Mac Plus was sold containing a Motorola 68000 processor. The CD-I was sold containing a SCC68070 processor.
memory that stores programming instructions that, when read by the processing unit, causes the processing unit to	The Mac Plus has a hard disk drive that stores programming instructions, which are loaded into RAM memory prior to being read and executed by the processor. The CD-I stores programming instructions in memory contained on CD-I disks, and in mb834200b-15 ROM memory and upd424270 RAM memory.
(a) provide a video control icon that is	The CD-I video graphics processor provides a video control icon that is visible on the display and that relates to live video that is being presented as the background on the display, as shown, for example, by the fastforward and

U.S. Patent No. 6,784,879	
visible on the display, wherein the video control icon relates to live video that is being presented as a background on the display;	fast reverse icons in Figure 1, below:  **Figure 1**
(b) detect selection of the video control icon;	The video graphics processor in the CD-I detects selection of the video control icon when the mouse cursor is placed over the icon. In Figure 1, the double bar pause icon has been replaced by a pause control panel.

U.S. Patent No. 6,784,879	
(c) provide a control panel while the live video remains in the background	The video graphics processor in the CD-I provides a control panel including icons to control fast-forward, fast-reverse, and pause, as shown in Figure 2, below. In the example, the fast reverse icon has been replaced by a fast reverse control panel:  **Figure 2**
and an application that was in focus	The application that was in focus on the display -- e.g., the clock display provided by the Mac Plus-- remains in

U.S. Patent No. 6,784,879	
remains in focus when the video control icon has been selected,	focus when the video control icon has been selected, as shown in Figure 2, above.
wherein the control panel includes at least one of the following: a volume adjust icon, a mute icon, a pause icon, a rewind icon, and a fast-forward icon.	The control panel includes a pause icon, a rewind icon, and a fast-forward icon, as shown in Figure 2, above.
Claim 12	
The video graphics process of claim **11** further comprises,	See claim 11.
within the memory, programming instructions that, when read by the processing unit, causes the processing unit to provide, as the control panel, at least one of: volume	Various CD-I disks contained programming instructions that, when read and then executed by the CD-I processing unit, caused the processing unit to provide various control icons, as shown in Figure 2, above. To the extent that these control icons did not include at least one of a volume adjust icon, a mute icon, a channel up icon, a channel down icon, a numerical channel display icon, or a alpha-numeric channel display icon, it would have been obvious to one of ordinary skill in the art to modify the CD-I to provide one or more of these icons in light of other prior art, including, for example, the RCA ProScan Television PS35680, the Sony Television KV-32V16, or the FroxSystem.

U.S. Patent No. 6,784,879	
adjust icon, mute icon, channel up icon, channel down icon, numerical channel display, and alpha-numeric channel display.	
Claim 13	
The video graphics process of claim 11 comprises,	See claim 11.
within the memory, programming instructions that, when read by the processing unit, causes the processing unit to remove the control panel when another displayed element is selected.	The CD-I has within its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to remove the control panel when another displayed element is selected. For example, when the background video is clicked upon, the control panel is removed.
Claim 14	
A video graphics processor	Assuming for present purposes (without admitting) that the preamble is a claim limitation, the Mac Plus was sold

U.S. Patent No. 6,784,879	
comprising:	containing a Motorola 68000 processor. The CD-I was sold containing a SCC68070 processor.
a processing unit; and	The Mac Plus was sold containing a Motorola 68000 processor. The CD-I was sold containing a SCC68070 processor.
memory that stores programming instructions that, when read by the processing unit, causes the processing unit to (a) detect selection of a video control icon,	The CD-I disk stores instructions that cause the processing unit to detect selection of a video control icon, as shown in Figures 1 and 2, above.
wherein the video control icon relates to live video that is being presented as a background on a display;	The video control icons on the CD-I relates to the live video playing in the background.
(b) provide a control panel while the live video remain [sic] the background and an application that was in focus remains in focus	When the volume video control icon is selected, the CD-I processor provides a control panel while the live video remains in the background and the clock application provided by the Mac Plus that was in focus remains in focus, as shown in Figure 2, above.

U.S. Patent No. 6,784,879	
when the video control icon has been selected; and	
(c) adjust at least one attribute of the live video based on an input received via the control panel, wherein the at least one attribute included: volume, mute, pause, rewind, and fast-forward.	The control panel receives input to adjust various attributes of the live video, including pause, fast-forward, and fast-reverse, as shown in Figure 2, above.
Claim 15	
The video graphics processor of claim **14** further comprises,	See claim 14.
within the memory, programming instructions that, when read by the processing unit, causes the processing unit to	The CD-I disk stores programming instructions that, when read and then executed by the processing unit, allow for the adjustment of various attributes, as shown in Figure 2, above. To the extent that these attributes did not include at least one of a volume, mute, channel up, or channel down, it would have been obvious to one of ordinary skill in the art to modify the CD-I to provide one or more of these icons in light of other prior art, including, for example, the RCA ProScan Television PS35680, the Sony Television KV-32V16, or the FroxSystem.

U.S. Patent No. 6,784,879	
adjust the at least one attribute by adjusting at least one of: volume, mute, channel up, and channel down.	
Claim 16	
The video graphics processor of claim **14** further comprises,	See claim 14.
within the memory, programming instructions that, when read by the processing unit, causes the processing unit to remove the control panel when another displayed element is selected.	The CD-I has within its memory programming instructions that, when read and then executed by the CD-I processing unit, cause the processing unit to remove the control panel when another displayed element is selected. For example, when the background video is selected, the control panel is removed.
Claim 17	
A digital storage device that stores	Assuming for present purposes (without admitting) that the preamble is a claim limitation, the CD-I contains a digital storage device -- e.g., the CD-I disk, the ROM memory, and the RAM memory -- that stores programming

U.S. Patent No. 6,784,879	
programming instructions that, when read by a processing unit, causes the processing unit to provide control of background video, the digital storage device comprises:	instructions that, when read and then executed by the CD-I processing unit, cause the processing unit to provide control of background video.
first storage means for storing programming instructions that, when read by the processing unit, causes the processing unit to provide a video control icon that is visible on the display, wherein the video control icon relates to live video that is being presented as a background on a display;	Assuming for present purposes (without conceding) that the claimed first, second, and third storage means refer to regions of one or more storage devices and not to three separate and distinct memory devices, the CD-I has memory for storing programming instructions (e.g., the hard drive and the RAM memory), which, when read and then executed by the processor, cause the processing unit to provide a video control icon that is visible on the display and that relates to live video that is being presented as a background display, as shown in Figure 1, above.

U.S. Patent No. 6,784,879	
second storage means for storing programming instructions that, when read by the processing unit, causes the programming unit to detect selection of the video control icon; and	Assuming for present purposes (without conceding) that the claimed first, second, and third storage means refer to regions of one or more storage devices and not to three separate and distinct memory devices, the CD-I has memory for storing programming instructions (e.g., the CD-I disk, the RAM memory, and the ROM memory), which, when read and then executed by the processor, cause the processing unit to detect selection of the video control icon, as shown in Figure 2, above.
third storage means for storing programming instructions that, when read by the processing unit, causes the processing unit to provide a control panel while the live video remains in the background and an application that was in focus remains in focus when the video control icon has been selected.	Assuming for present purposes (without conceding) that the claimed first, second, and third storage means refer to regions of one or more storage devices and not to three separate and distinct memory devices, the CD-I has memory for storing programming instructions (for example, the CD-I disk, the RAM memory, and the ROM memory), which, when read and then executed by the processor, cause the processing unit to provide the control panel while the live video remains in the background and the foreground application -- i.e., the clock display provided by the Mac Plus-- remains in focus when the video control icon has been selected, as shown in Figure 2, above.

U.S. Patent No. 6,784,879	
Claim 18	
The digital storage device of claim **17** further comprises	See claim 17.
means for storing programming instructions that, when read by the processing unit, causes the processing unit to provide, as the control panel, at least one of: volume adjust icon, mute icon, pause icon, rewind icon, and fast-forward icon.	The CD-I stores in its memory programming instructions that, when read and then executed by the processing unit, provide a control panel that has icons allowing for the adjustment of various attributes, including pause, fast-reverse, and fast-forward, as shown in Figure 1, above.
Claim 19	
The digital storage device of claim 17 further comprises	See claim 17.
means for storing programming instructions that,	The CD-I stores in its memory programming instructions that, when read and then executed by the processing unit, provide a control panel that has icons allowing for the adjustment of various attributes, as shown in Figure 1, above. To the extent that these attributes did not include at least one of a volume, mute, channel up, or channel down, it

U.S. Patent No. 6,784,879	
when read by the processing unit, causes the processing unit to provide, as the control panel, at least on of: volume adjust icon, mute icon, channel up icon, channel down icon, numerical channel display, and alpha-numeric channel display.	would have been obvious to one of ordinary skill in the art to modify the CD-I to provide one or more of these icons in light of other prior art, including, for example, the RCA ProScan Television PS35680, the Sony Television KV-32V16, or the FroxSystem.
Claim 20	
The digital storage device of claim 17 further comprises	See claim 17.
means for storing programming instructions that, when read by the processing unit, causes the processing unit to remove the control panel when another	The CD-I has within its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to remove the control panel when another displayed element is selected. For example, when the background video is selected, the control panel is removed.

U.S. Patent No. 6,784,879	
displayed element is selected.	
Claim 21	
A digital storage device that stores programming instructions that, when read by a processing unit, causes the processing unit to provide control of background video, the digital storage device comprises:	Assuming for present purposes (without admitting) that the preamble is a claim limitation, the CD-I contains a digital storage device (e.g., the CD-I disk, the ROM memory, and RAM memory) that stores programming instructions that, when read and then executed by the processing unit, cause the processing unit to provide control of background video.
first storage means for storing programming instructions that, when read by the processing unit, causes the processing unit to detect selection of a video control icon, wherein the video control icon relates	Assuming for present purposes (without conceding) that the claimed first, second, and second storage means refer to regions of one or more storage devices and not to two separate and distinct memory devices, the CD-I has memory for storing programming instructions (e.g., the CD-I disk, ROM memory, and RAM memory), which, when read and then executed by the processor, cause the processing unit to detect selection of a video control icon that relates to live video that is being presented as a background display, as shown in Figures 1 and 2, above.

U.S. Patent No. 6,784,879	
to live video that is being presented as a background on a display;	
second storage means for storing programming instructions that, when read by the processing unit, causes the processing unit to provide a control panel while the live video remains in the background and an application that was in focus remains in focus when the video control icon has been selected; and	Assuming for present purposes (without conceding) that the claimed first, second, and second storage means refer to regions of one or more storage devices and not to two separate and distinct memory devices, the CD-I has memory for storing programming instructions (e.g., the CD-I disk, ROM memory, and RAM memory), which, when read and then executed by the processing unit, cause the processing unit to provide a control panel while the live video remains in the background and while a foreground application -- i.e., the clock display provided by the Mac Plus-- remains in focus when the video control icon has been selected, as shown in Figure 2.
second storage means for storing programming instructions that, when read by the processing unit,	Assuming for present purposes (without conceding) that the claimed first, second, and second storage means refer to regions of one or more storage devices and not to two separate and distinct memory devices, the CD-I has memory for storing programming instructions (e.g., the CD-I disk, the ROM memory, and RAM memory), which, when read and then executed by the processing unit, cause the processing unit to adjust at least one attribute of the live video based on an input received via the control panel, as shown in Figure 2.

U.S. Patent No. 6,784,879	
causes the processing unit to adjust at least one attribute of the live video based on an input received via the control panel.	
Claim 22	
The digital storage device of claim 21 further comprises	See claim 21.
means for storing programming instructions that, when read by the processing unit, causes the processing unit to adjust the at least one attribute by adjusting at least one of: volume, mute, pause, rewind, and fast-forward.	The CD-I stores in its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to adjust various attributes of the live video, including pause, fast-reverse, and fast-forward, as shown in Figure 2, above.

U.S. Patent No. 6,784,879	
Claim 23	
The digital storage device of claim 21 further comprises	See claim 21.
means for storing programming instructions that, when read by the processing unit, causes the processing unit to adjust the at least one attribute by adjusting at least one of: volume, mute, channel up, and channel down.	The CD-I stores in its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to adjust various attributes of the live video, as shown in Figure 1, above. To the extent that these attributes did not include at least one of volume, mute, channel up, or channel down, it would have been obvious to one of ordinary skill in the art to modify the CD-I to provide one or more of these icons in light of other prior art, including, for example, the RCA ProScan Television PS35680, the Sony Television KV-32V16, or the FroxSystem.
Claim 24	
The digital storage device of claim 21 further comprises	See claim 21.
means for storing programming instructions that, when read by the	The CD-I has within its memory programming instructions that, when read and then executed by the processing unit, cause the processing unit to remove the control panel when another displayed element is selected. For example, when the background video is selected, the control panel is removed.

U.S. Patent No. 6,784,879	
processing unit, causes the processing unit to remove the control panel when another displayed element is selected.	