

## **Exhibit H**

*Apple v. Motorola S.D. Florida*

**Motorola Mobility's and Motorola Solutions'  
REPRESENTATIVE CLAIM CHARTS ESTABLISHING  
INVALIDITY OF U.S. PATENT NO. 6,282,646**

Asserted Claims: 1, 10, 13, 14, 16, 32

At least the following references, alone or in combination with the knowledge of one of ordinary skill in the art or with other prior art, establish invalidity of all Asserted Claims of U.S. Patent 6,282,646 ("the '646 Patent"), as those claims are broadly asserted by Apple against the Accused Products.

References anticipating one or more claims of the '646 Patent under § 102 or, in the alternative, rendering them obvious under § 103 alone or in combination with other references:

- (1) Hewlett Packard OmniBook 800 ("OmniBook")
- (2) U.S. Patent No. 6,049,316 ("Nolan")
- (3) U.S. Patent No. 6,247,079 ("Papa")
- (4) U.S. Patent No. 5,038,301 (Thoma)
- (5) U.S. Patent No. 5,072,411 (Yamaki)
- (6) U.S. Patent No. 5,386,567 (Lien et al.) ("Lien")
- (7) U.S. Patent No. 5,159,683 (Lvovsky et. al.) ("Lvovsky")

- (8) U.S. Patent No. 5,459,825 (Anderson et al.) ("Anderson")
- (9) U.S. Patent No. 5,506,602 (Yokoyama)
- (10) U.S. Patent No. 5,581,788 (Ballare)
- (11) U.S. Patent No. 5,682,529 (Hendry)
- (12) Azinger, Eric, "Radius display can fit different orientations," July 22, 1991 ("Radius Monitor").
- (13) U.S. Patent No. 5,768,541 (Pan-Ratzlaff)
- (14) Japanese Patent App. Pub. No. H7-271473 (Ninomiya)
- (15) U.S. Patent No. 4,922,448 (Kunieda et al.) ("Kunieda")
- (16) U.S. Patent No. 5,014,193 (Garner et al.) ("Garner")
- (17) U.S. Patent No. 5,276,458 ("Sawdon")
- (18) U.S. Patent No. 5,872,998 ("Chee")
- (19) U.S. Patent No. 5,926,166 ("Khederzadeh")
- (20) U.S. Patent No. 6,032,202 ("Lea")
- (21) U.S. Patent No. 6,263,387 ("Chrabaszc")

- (22) U.S. Patent No. 7,053,864 (“Lee”)
- (23) U.S. Patent No. 5,559,525 (“Zenda”)
- (24) U.S. Patent No. 5,627,974 (“Watts”)
- (25) U.S. Patent No. 5,590,376 (“Kou”)
- (26) U.S. Patent No. 5,825,359 (“Derby”)
- (27) U.S. Patent No. 5,923,307 (“Hogle, IV”)
- (28) Plug and Play BIOS Specification, Version 1.0A, May 5, 1994, by Compaq Computer Corporation, Phoenix Technologies, Ltd., and Intel Corporation

**APPLE V. MOTOROLA S.D. FLORIDA**

**MOTOROLA MOBILITY'S AND MOTOROLA SOLUTIONS'**

**REPRESENTATIVE CLAIM CHARTS ESTABLISHING INVALIDITY OF U.S. PATENT NO. 6,282,646**

**JUNE 20, 2011**

**Reference:** Plug and Play BIOS Specification, Version 1.0A, May 5, 1994, by Compaq Computer Corporation, Phoenix Technologies, Ltd., and Intel Corporation

U.S. Patent No. 6,282,646	Disclosure in PnP BIOS
<p>1. A method for reconfiguring a computer system to accommodate changes in a display environment, comprising the steps of:</p>	<p>PnP BIOS discloses a method for reconfiguring a computer system to accommodate changes in a display environment.</p> <p><i>See e.g., PnP BIOS p. 15</i></p> <p><b>Step 4 Enable Input and Output Devices</b>                      Select and enable the Input and Output Device. Compatibility devices in the system that are not configurable always have precedence. For example, a standard VGA adapter would become the primary output device. If configurable Input and Output Devices exists, then enable these devices at this time. If Plug and Play Input and Output Devices are being selected, then initialize the option ROM, if it exists, using the Plug and Play option ROM initialization procedure (See section 3).</p> <p><i>See e.g., PnP BIOS p. 15</i></p> <p><b>Step 9 Operating system takes over resource management</b>                      If the loaded operating system is Plug and Play compliant, then it will take over management of the system resources. It will use the runtime services of the system BIOS to determine the current allocation of these resources. It is assumed that any unconfigured Plug and Play devices will be configured by the appropriate system software or the Plug and Play operating system.</p>
<p>detecting the addition or removal of an input/output device in the computer system;</p>	<p>PnP Bios discloses detecting the addition or removal of an input/output device in the computer system.</p> <p><i>See e.g., PnP BIOS p. 5</i></p> <p><b>Provide system event notification</b>                      The system BIOS is capable of detecting certain hardware events that could affect the system configuration. By providing an event notification mechanism, an operating system can recognize the event and process any necessary configuration changes.</p>

	<p>See e.g., PnP BIOS p. 21</p> <p>Upon exit from the initialization call, Plug and Play Option ROMs should return some boot device status information in the following format: Return Status from Initialization Call:</p> <table border="1" data-bbox="485 354 1409 690"> <thead> <tr> <th>Bit</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>1 = IPL Device supports INT 13h Block Device format</td> </tr> <tr> <td>7</td> <td>1 = Output Device supports INT 10h Character Output</td> </tr> <tr> <td>6</td> <td>1 = Input Device supports INT 9h Character Input</td> </tr> <tr> <td>5:4</td> <td>00 = No IPL device attached 01 = Unknown whether or not an IPL device is attached 10 = IPL device attached (IPL devices have a connection). 11 = Reserved</td> </tr> <tr> <td>3:2</td> <td>00 = No Display device attached 01 = Unknown whether or not a Display device is attached 10 = Display device attached 11 = Reserved</td> </tr> </tbody> </table>	Bit	Description	8	1 = IPL Device supports INT 13h Block Device format	7	1 = Output Device supports INT 10h Character Output	6	1 = Input Device supports INT 9h Character Input	5:4	00 = No IPL device attached 01 = Unknown whether or not an IPL device is attached 10 = IPL device attached (IPL devices have a connection). 11 = Reserved	3:2	00 = No Display device attached 01 = Unknown whether or not a Display device is attached 10 = Display device attached 11 = Reserved
Bit	Description												
8	1 = IPL Device supports INT 13h Block Device format												
7	1 = Output Device supports INT 10h Character Output												
6	1 = Input Device supports INT 9h Character Input												
5:4	00 = No IPL device attached 01 = Unknown whether or not an IPL device is attached 10 = IPL device attached (IPL devices have a connection). 11 = Reserved												
3:2	00 = No Display device attached 01 = Unknown whether or not a Display device is attached 10 = Display device attached 11 = Reserved												
<p>determining whether an input/output device which has been added or removed is a video device, in response to said detection;</p>	<p>PnP Bios discloses determining whether an input/output device which has been added or removed is a video device, in response to said detection</p> <p>See e.g., PnP BIOS p 34</p> <p>Certain classes of systems may provide the capability for the addition or removal of system devices while the system unit is powered on, such as inserting a Notebook unit into a Docking Station. System BIOS support is necessary for providing Event Notification accessible to system software so that when devices are added or removed the system software will comprehend the use or release of system resources by those devices. Event Notification can be implemented as either a polled method or as asynchronous events.</p> <p>See e.g., PnP BIOS p. 36</p> <table border="1" data-bbox="485 1203 1591 1260"> <tr> <td>SYSTEM_DEVICE_CHANGED</td> <td>0003h</td> <td>This message indicates that removable ("pluggable") system devices have been removed or inserted into the base unit.</td> </tr> </table> <p>See e.g., PnP BIOS p. 21</p>	SYSTEM_DEVICE_CHANGED	0003h	This message indicates that removable ("pluggable") system devices have been removed or inserted into the base unit.									
SYSTEM_DEVICE_CHANGED	0003h	This message indicates that removable ("pluggable") system devices have been removed or inserted into the base unit.											

	<p>Upon exit from the initialization call, Plug and Play Option ROMs should return some boot device status information in the following format: Return Status from Initialization Call:</p> <table border="1"> <thead> <tr> <th>AN Bit</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>1 = IPL Device supports INT 13h Block Device format</td> </tr> <tr> <td>7</td> <td>1 = Output Device supports INT 10h Character Output</td> </tr> <tr> <td>6</td> <td>1 = Input Device supports INT 9h Character Input</td> </tr> <tr> <td>5:4</td> <td>00 = No IPL device attached 01 = Unknown whether or not an IPL device is attached 10 = IPL device attached (IPL devices have a connection). 11 = Reserved</td> </tr> <tr> <td>3:2</td> <td>00 = No Display device attached 01 = Unknown whether or not a Display device is attached 10 = Display device attached 11 = Reserved</td> </tr> </tbody> </table>	AN Bit	Description	8	1 = IPL Device supports INT 13h Block Device format	7	1 = Output Device supports INT 10h Character Output	6	1 = Input Device supports INT 9h Character Input	5:4	00 = No IPL device attached 01 = Unknown whether or not an IPL device is attached 10 = IPL device attached (IPL devices have a connection). 11 = Reserved	3:2	00 = No Display device attached 01 = Unknown whether or not a Display device is attached 10 = Display device attached 11 = Reserved
AN Bit	Description												
8	1 = IPL Device supports INT 13h Block Device format												
7	1 = Output Device supports INT 10h Character Output												
6	1 = Input Device supports INT 9h Character Input												
5:4	00 = No IPL device attached 01 = Unknown whether or not an IPL device is attached 10 = IPL device attached (IPL devices have a connection). 11 = Reserved												
3:2	00 = No Display device attached 01 = Unknown whether or not a Display device is attached 10 = Display device attached 11 = Reserved												
<p>providing a notification to a display manager when a determination is made that a video device has been added or removed; and</p>	<p>PnP BIOS discloses providing a notification to a display manager when a determination is made that a video device has been added or removed.</p> <p><i>See e.g., PnP BIOS p 34</i></p> <p>Certain classes of systems may provide the capability for the addition or removal of system devices while the system unit is powered on, such as inserting a Notebook unit into a Docking Station. System BIOS support is necessary for providing Event Notification accessible to system software so that when devices are added or removed the system software will comprehend the use or release of system resources by those devices. Event Notification can be implemented as either a polled method or as asynchronous events.</p> <p><i>See e.g., PnP BIOS p. 36</i></p> <table border="1"> <tr> <td>SYSTEM_DEVICE_CHANGED</td> <td>0003h</td> <td>This message indicates that removable ("plug gable") system devices have been removed or inserted into the base unit.</td> </tr> </table> <p><i>See e.g., PnP BIOS p. 21</i></p>	SYSTEM_DEVICE_CHANGED	0003h	This message indicates that removable ("plug gable") system devices have been removed or inserted into the base unit.									
SYSTEM_DEVICE_CHANGED	0003h	This message indicates that removable ("plug gable") system devices have been removed or inserted into the base unit.											

	<p>Upon exit from the initialization call, Plug and Play Option ROMs should return some boot device status information in the following format: Return Status from Initialization Call:</p> <table border="1" data-bbox="485 280 1409 618"> <thead> <tr> <th>AN Bit</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>1 = IPL Device supports INT 13h Block Device format</td> </tr> <tr> <td>7</td> <td>1 = Output Device supports INT 10h Character Output</td> </tr> <tr> <td>6</td> <td>1 = Input Device supports INT 9h Character Input</td> </tr> <tr> <td>5:4</td> <td>00 = No IPL device attached 01 = Unknown whether or not an IPL device is attached 10 = IPL device attached (IPL devices have a connection). 11 = Reserved</td> </tr> <tr> <td>3:2</td> <td>00 = No Display device attached 01 = Unknown whether or not a Display device is attached 10 = Display device attached 11 = Reserved</td> </tr> </tbody> </table>	AN Bit	Description	8	1 = IPL Device supports INT 13h Block Device format	7	1 = Output Device supports INT 10h Character Output	6	1 = Input Device supports INT 9h Character Input	5:4	00 = No IPL device attached 01 = Unknown whether or not an IPL device is attached 10 = IPL device attached (IPL devices have a connection). 11 = Reserved	3:2	00 = No Display device attached 01 = Unknown whether or not a Display device is attached 10 = Display device attached 11 = Reserved
AN Bit	Description												
8	1 = IPL Device supports INT 13h Block Device format												
7	1 = Output Device supports INT 10h Character Output												
6	1 = Input Device supports INT 9h Character Input												
5:4	00 = No IPL device attached 01 = Unknown whether or not an IPL device is attached 10 = IPL device attached (IPL devices have a connection). 11 = Reserved												
3:2	00 = No Display device attached 01 = Unknown whether or not a Display device is attached 10 = Display device attached 11 = Reserved												
<p>modifying the allocation of display space to display devices via said display manager, in accordance with the addition or removal of a video device.</p>	<p>PnP BIOS discloses modifying the allocation of display space to display devices via said display manager, in accordance with the addition or removal of a video device.</p> <p><i>See e.g., PnP BIOS p. 15</i></p> <p><b>Step 9 Operating system takes over resource management</b> If the loaded operating system is Plug and Play compliant, then it will take over management of the system resources. It will use the runtime services of the system BIOS to determine the current allocation of these resources. It is assumed that any unconfigured Plug and Play devices will be configured by the appropriate system software or the Plug and Play operating system.</p> <p><i>See e.g., PnP BIOS p. 15</i></p> <p><b>Step 4 Enable Input and Output Devices</b> Select and enable the Input and Output Device. Compatibility devices in the system that are not configurable always have precedence. For example, a standard VGA adapter would become the primary output device. If configurable Input and Output Devices exists, then enable these devices at this time. If Plug and Play Input and Output Devices are being selected, then initialize the option ROM, if it exists, using the Plug and Play option ROM initialization procedure (See section 3).</p>												



<p>10. A system which provides hot-plugging capabilities for display devices, comprising:</p>	<p>PnP Bios discloses a system which provides hot-plugging capabilities for display devices.</p> <p><i>See e.g., PnP BIOS p 34</i></p> <p>Certain classes of systems may provide the capability for the addition or removal of system devices while the system unit is powered on, such as inserting a Notebook unit into a Docking Station. System BIOS support is necessary for providing Event Notification accessible to system software so that when devices are added or removed the system software will comprehend the use or release of system resources by those devices. Event Notification can be implemented as either a polled method or as asynchronous events.</p> <p><i>See e.g., PnP BIOS p. 36</i></p> <table border="1" data-bbox="485 609 1591 662"> <tr> <td data-bbox="485 609 888 662">SYSTEM_DEVICE_CHANGED</td> <td data-bbox="888 609 993 662">0003h</td> <td data-bbox="993 609 1591 662">This message indicates that removable ("plug gable") system devices have been removed or inserted into the base unit.</td> </tr> </table>	SYSTEM_DEVICE_CHANGED	0003h	This message indicates that removable ("plug gable") system devices have been removed or inserted into the base unit.
SYSTEM_DEVICE_CHANGED	0003h	This message indicates that removable ("plug gable") system devices have been removed or inserted into the base unit.		
<p>a video device including a frame buffer for storing data that defines an image to be displayed on an associated display device;</p>	<p>This claim element is also contained explicitly and/or inherently in one or more of the prior art references listed in the pleading and/or is contained in the knowledge of one of skill in the art, and one of ordinary skill in the art would have been motivated to combine the charted reference with one or more of the prior art references and/or the knowledge of one skilled in the art. Motorola Mobility reserves the right to supplement this chart and/or add prior art references to the pleading.</p>			
<p>a display manager which defines a display space and assigns a portion of said display space to said frame buffer, and which provides data for images to be displayed to said frame buffer; and</p>	<p>This claim element is also contained explicitly and/or inherently in one or more of the prior art references listed in the pleading and/or is contained in the knowledge of one of skill in the art, and one of ordinary skill in the art would have been motivated to combine the charted reference with one or more of the prior art references and/or the knowledge of one skilled in the art. Motorola Mobility reserves the right to supplement this chart and/or add prior art references to the pleading.</p>			

<p>a device manager which detects the addition or removal of a device in a computer system, determines whether a device which has been added or removed is a video device, and provides a notification of such addition or removal to the display manager when a video device is determined to have been added or removed, to cause the assignment of a portion of the display space to be modified in accordance with a detected addition or removal.</p>	<p>This claim element is also contained explicitly and/or inherently in one or more of the prior art references listed in the pleading and/or is contained in the knowledge of one of skill in the art, and one of ordinary skill in the art would have been motivated to combine the charted reference with one or more of the prior art references and/or the knowledge of one skilled in the art. Motorola Mobility reserves the right to supplement this chart and/or add prior art references to the pleading.</p>
<p>13. A system which provides hot-plugging capabilities for display devices,</p>	<p>PnP Bios discloses a system which provides hot-plugging capabilities for display devices.  <i>See e.g., PnP BIOS p 34</i></p>

<p>comprising:</p>	<p>Certain classes of systems may provide the capability for the addition or removal of system devices while the system unit is powered on, such as inserting a Notebook unit into a Docking Station. System BIOS support is necessary for providing Event Notification accessible to system software so that when devices are added or removed the system software will comprehend the use or release of system resources by those devices. Event Notification can be implemented as either a polled method or as asynchronous events.</p> <p><i>See e.g., PnP BIOS p. 36</i></p> <table border="1" data-bbox="483 462 1585 519"> <tr> <td data-bbox="483 462 882 519">SYSTEM_DEVICE_CHANGED</td> <td data-bbox="882 462 997 519">0003h</td> <td data-bbox="997 462 1585 519">This message indicates that removable ("pluggable") system devices have been removed or inserted into the base unit.</td> </tr> </table>	SYSTEM_DEVICE_CHANGED	0003h	This message indicates that removable ("pluggable") system devices have been removed or inserted into the base unit.
SYSTEM_DEVICE_CHANGED	0003h	This message indicates that removable ("pluggable") system devices have been removed or inserted into the base unit.		
<p>at least one display for displaying images;</p>	<p>This claim element is also contained explicitly and/or inherently in one or more of the prior art references listed in the pleading and/or is contained in the knowledge of one of skill in the art, and one of ordinary skill in the art would have been motivated to combine the charted reference with one or more of the prior art references and/or the knowledge of one skilled in the art. Motorola Mobility reserves the right to supplement this chart and/or add prior art references to the pleading.</p>			
<p>a display manager which defines a display space and assigns a portion of said display space to a display device, and which provides data for images to be displayed on said display device; and</p>	<p>This claim element is also contained explicitly and/or inherently in one or more of the prior art references listed in the pleading and/or is contained in the knowledge of one of skill in the art, and one of ordinary skill in the art would have been motivated to combine the charted reference with one or more of the prior art references and/or the knowledge of one skilled in the art. Motorola Mobility reserves the right to supplement this chart and/or add prior art references to the pleading.</p>			
<p>a device manager which detects the addition or removal of a device in a computer system, determines whether</p>	<p>This claim element is also contained explicitly and/or inherently in one or more of the prior art references listed in the pleading and/or is contained in the knowledge of one of skill in the art, and one of ordinary skill in the art would have been motivated to combine the charted reference with one or more of the prior art references and/or the knowledge of one skilled in the art. Motorola Mobility reserves the right to supplement this chart and/or add prior art references to the pleading.</p>			

<p>a device which has been added or removed is a display device, and provides a notification of such addition or removal to the display manager when a display device is determined to have been added or removed, to cause the assignment of a portion of the display space to be modified in accordance with a detected addition or removal.</p>	
<p>14. The system of claim 13 further including a frame buffer which is associated with an assigned portion of the display space, and wherein said display manager modifies said assignment by associating said</p>	<p>This claim element is also contained explicitly and/or inherently in one or more of the prior art references listed in the pleading and/or is contained in the knowledge of one of skill in the art, and one of ordinary skill in the art would have been motivated to combine the charted reference with one or more of the prior art references and/or the knowledge of one skilled in the art. Motorola Mobility reserves the right to supplement this chart and/or add prior art references to the pleading.</p>

<p>frame buffer with said display device.</p>	
<p>16. A computer-readable medium containing a device manager program and a display manager program, wherein said device manager program performs the steps of</p>	<p>PnP BIOS discloses a computer-readable medium containing a device manager program and a display manager program.</p>
<p>detecting the addition or removal of an input/output device in a computer system,</p>	<p>PnP Bios discloses detecting the addition or removal of an input/output device in a computer system. <i>See Claim 1 above.</i></p>
<p>determining whether the input/output device is a video device, and</p>	<p>PnP Bios discloses determining whether the input/output device is a video device. <i>See Claim 1 above.</i></p>
<p>providing a notification to the display manager program when a video device is added or removed;</p>	<p>PnP BIOS discloses providing a notification to the display manager program when a video device is added or removed. <i>See Claim 1 above.</i></p>
<p>and wherein said display manager performs the step of: modifying the allocation of display</p>	<p>PnP BIOS discloses said display manager performs the step of: modifying the allocation of display space to display devices in response to said notification from the device manager. <i>See Claim 1 above.</i></p>

<p>space to display devices in response to said notification from the device manager.</p>	
<p>32. A computer-readable medium containing a device manager program and a display manager program, wherein said device manager program performs the steps of:</p>	<p>PnP BIOS discloses a computer-readable medium containing a device manager program and a display manager program. <i>See</i> Claim 16 above.</p>
<p>detecting the addition or removal of a video device in a computer system, and</p>	<p>PnP Bios discloses detecting the addition or removal of an input/output device in a computer system. <i>See</i> Claim 1 above.</p>
<p>providing a notification to the display manager program when a video device is added or removed;</p>	<p>PnP BIOS discloses providing a notification to the display manager program when a video device is added or removed. <i>See</i> Claim 1 above.</p>
<p>and wherein said display manager performs the step of: modifying the allocation of display space to display devices in response</p>	<p>PnP BIOS discloses said display manager performs the step of: modifying the allocation of display space to display devices in response to said notification from the device manager.  <i>See e.g.,</i> PnP BIOS p 34</p>

<p>to said notification from the device manager, and</p>	<p>Certain classes of systems may provide the capability for the addition or removal of system devices while the system unit is powered on, such as inserting a Notebook unit into a Docking Station. System BIOS support is necessary for providing Event Notification accessible to system software so that when devices are added or removed the system software will comprehend the use or release of system resources by those devices. Event Notification can be implemented as either a polled method or as asynchronous events.</p> <p><i>See e.g., PnP BIOS p. 36</i></p> <table border="1" data-bbox="485 467 1591 521"> <tr> <td>SYSTEM_DEVICE_CHANGED</td> <td>0003h</td> <td>This message indicates that removable ("pluggable") system devices have been removed or inserted into the base unit.</td> </tr> </table>	SYSTEM_DEVICE_CHANGED	0003h	This message indicates that removable ("pluggable") system devices have been removed or inserted into the base unit.
SYSTEM_DEVICE_CHANGED	0003h	This message indicates that removable ("pluggable") system devices have been removed or inserted into the base unit.		
<p>reconfiguring at least one computer resource in accordance with the modification of the display space allocation.</p>	<p>PnP BIOS discloses reconfiguring at least one computer resource in accordance with the modification of the display space allocation.</p> <p><i>See e.g., PnP BIOS p 34</i></p> <p>Certain classes of systems may provide the capability for the addition or removal of system devices while the system unit is powered on, such as inserting a Notebook unit into a Docking Station. System BIOS support is necessary for providing Event Notification accessible to system software so that when devices are added or removed the system software will comprehend the use or release of system resources by those devices. Event Notification can be implemented as either a polled method or as asynchronous events.</p> <p><i>See e.g., PnP BIOS p. 36</i></p> <table border="1" data-bbox="485 1000 1591 1053"> <tr> <td>SYSTEM_DEVICE_CHANGED</td> <td>0003h</td> <td>This message indicates that removable ("pluggable") system devices have been removed or inserted into the base unit.</td> </tr> </table>	SYSTEM_DEVICE_CHANGED	0003h	This message indicates that removable ("pluggable") system devices have been removed or inserted into the base unit.
SYSTEM_DEVICE_CHANGED	0003h	This message indicates that removable ("pluggable") system devices have been removed or inserted into the base unit.		