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Re: Hitachi Patent Assertions

Dear Sirs,

This letter follows up on our meeting of January 28, 2015, and is in further response to Hitachi's correspondence of September 8, 2014, to Apple regarding U.S. Patent Nos. 5,396,443, 8,311,389, 6,748,317, 6,898,078, and 8,214,459. As discussed below, Apple has reviewed each of the patents identified by Hitachi Maxell, and does not believe that a license is necessary for these patents. Apple's positions on each patent are summarized below.

1. U.S. Pat. No. 5,396,443 (the '443 patent)

The '443 patent expired in October of 2013. Hitachi alleges that certain features of the iPhone 4/5 series and iPad / iPad2 / iPad mini series infringe claim 1. Specifically, Hitachi argues that the display in these devices is set to a non-power saving state if a user finger is detected near the screen during a power saving state and that the screen is set in the power saving state if the user finger is distant from the screen for a predetermined period of time. For at least the reasons set forth below, Apple does not believe it needs a license to the '443 patent.

As Apple has explained before, the accused devices do not detect the "approach" of a user's finger. The touch screen detects "touch" or contact. Therefore, the claimed "detecting means" is not present. Hitachi argues that touch falls within the scope of the claimed detecting means because there is a special case in which distance is equal to zero. This argument fails on several grounds. The ordinary meaning of detecting approach does not encompass detecting contact. The specification makes this distinction repeatedly referring to when the user associated medium "approaches **or** comes in contact" with the detecting means as distinct alternatives throughout the description. *See e.g.*, Abstract ("sensor for detecting the approach **or** contact"); ("approach **or** contact detection sensor"); ("an approach detection type **or** a contact detection type tablet"); ("which can effect **both** the approach detection **and** the contact detection"); ("the approach or contact detection function are **both** used"). It also flies in the face of Hitachi's amendment to

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claim 1, which deleted “or comes in contact with” for the phrase “at least approaches.” Accordingly, the claims are limited to the approach-detecting function, not contact detection.

During our meeting, Hitachi alternatively argued that it believed that an iPhone would react to the approach of a user’s finger without contact with the touch screen. We have not been able to replicate this use case, and instead confirmed that the iPhone touch screen is designed to recognize touch, not approach – if Hitachi has evidence to the contrary, we would gladly review it and provide a response. However, based on the evidence produced to date, we maintain that iOS devices do not include any “detecting means for detecting whether a user-associated medium at least approaches” the device.

In addition, as Apple previously explained, the temporary dimming of the screen before an iOS device automatically locks is a user interface feature designed to alert the user that the device is about to lock. Touching the screen at this point prevents the device from auto-locking. However, once in the locked mode, touching the screen does not put the device back into normal operation as required by the claim; the Home button or the sleep/wake button must be pressed. Hitachi argues that because, with the lower brightness, the screen consumes less power, the short period when the screen is dimmed before auto-locking a device, what Hitachi calls the “dim state,” corresponds to the “power saving state” of the claims. Hitachi further argues that the “intention for incorporating the elements of the patented invention does not excuse infringement under 35 USC 271(a).” However, Hitachi misapprehends Apple’s argument.


The temporary dimming of the screen brightness is not a “dim state” or “power saving state” as the claims require because it is not a “state” at all; it is a user interface feature. The claims require a “power saving state,” which cannot reasonably be construed to cover all downward change in power consumption during the operation of the device. For example, when a user receives a call, more power is consumed due to the vibration mechanisms or the production of ringing signals through the audio circuitry. Similarly when data is being transmitted, more power is consumed by the radio components than when there is not. This does not mean that when a phone call is being received or data is being transmitted an iPhone is in a “non-power saving state” but once the ringing or vibrating stops or data is no longer being transmitted, the phone is in “a power saving state.” This interpretation is inconsistent with the written description of the ’443. The “power saving state” and “non-power saving state” have to be states designed and intended for saving power or not, and cannot be defined to correspond to just any functionality that results in changes in power consumption. Thus, it is not a matter of the intention for incorporating a claim element; to satisfy the claimed element, there has to be a state intended for saving power. The temporary dimming of the screen to indicate that the phone is about to auto-lock is not a “power saving state” as required by the claims, and thus there is no infringement.

Apple has also provided prior art that invalidates the asserted claim, including U.S. Patent No. 5,189,393 to Charles Hu (“Hu”). Hitachi argues that the Hu reference does not anticipate claim 1 of the ’443 patent because it does not disclose “an information processing apparatus” and because it discloses detecting motion, not whether a user-associated medium at least approaches the housing of the apparatus. These distinctions fail. First, the “information processing apparatus” language is only found in the preamble of the claim, which are not typically limiting. Further, the specification describes broadly what is meant by an information processing apparatus, and includes things such as “household furniture.” The Hu reference discloses that its sensors can be used for activating lights “or other apparatus.” This disclosure is broad enough to teach or

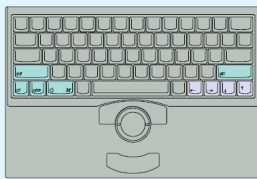



suggest the use of the Hu system with an information processing apparatus. Second, Hitachi's distinction based on motion detection is also inapplicable. The operation of the sensors of Hu are exactly the type of "detecting" operation claimed in the '443 patent. Hu discloses using ultrasonic sensors to receive ultrasonic waves and an infrared sensor to detect heat. These are precisely the types of sensors encompassed by the "detecting means" of the '443 patent. See claim 28 ("wherein said detecting means includes a temperature sensor ... by utilizing a detected change of a temperature ..."); claim 17 ("wherein said detecting means is a transmission pen type ultrasonic system tablet and said user-associated medium is a stylus pen having an ultrasonic oscillation function.") That Hu may use the detected signals to infer motion does not distinguish the actual disclosed sensors from the sensing means in the '443 patent. Thus, Hu invalidates at least claim 1 of the '443 patent.

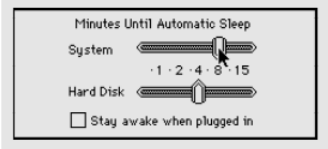
In addition, based on Hitachi's argument that detecting "approach" encompasses detecting touch, the '443 patent is invalid over a large volume of prior art information processing systems with a power savings mode. Apple's own notebooks pre-dating the 1992 priority date of the '443 patent included power savings features that would anticipate the claims of the '443 patent if broadly read to cover touch as a measure of approach. For example, the Apple Macintosh PowerBook 140, released for sale more than one year before the October 1992 priority date of the '443 patent, included an "Automatic sleep" mode that anticipates claim 1 of the '443 patent:

	Claim 1	Hitachi's Assertion	Prior Art - Macintosh PowerBook 140
A	1. An information processing apparatus comprising:	The phone is an information processing apparatus and has following elements.	"Macintosh User's Guide for Macintosh® PowerBook™ computers"
B	a housing;	As shown in figure 1, the phone has a housing.	<p>3. Raise the display to a comfortable viewing angle. You can adjust the angle of the display at any time.</p>  <p>Getting Started at 4.</p>



	Claim 1	Hitachi's Assertion	Prior Art - Macintosh PowerBook 140
C	a detecting means for detecting whether a user-associated medium at least approaches at least a part of a housing of said apparatus; and	As shown in figure 2, the phone has a projected capacitive touch screen, "Multi-Touch screen", which is a part of the phone. And also, the phone can detect approach of user-associated medium such as a user finger. Therefore, the phone has a detecting means.	<p>"You use the keyboard to type text and numbers, just as you would on a typewriter."</p>  <p>User's Guide at 24.</p> <p>3. Raise the display to a comfortable viewing angle. You can adjust the angle of the display at any time.</p>  <p>Getting Started at 4.</p>
D	<p>a control means for effecting control wherein, if said user-associated medium at least approaches said detecting means, a controlled object is set in a non-power saving state, and</p> <p>wherein, if said user associated medium is distant from said detecting means for at least a predetermined constant period of time, at least a part of said controlled object is set in a power saving state.</p>	<p>As shown in figure 3, "Apple Retina display" is set in a non-power saving state, if approach of a user finger is detected near the screen during a power saving state. And also, the display is set in the power saving state, if the user finger is distant from the screen for predetermined periods during the non-power saving state. Therefore, the phone has a control means.</p>	<p>"Most electronic devices, including other computers you may have used, have two power states: on and off. Macintosh PowerBook computers, however, have three power states: on, sleep, and off." Getting Started at 15.</p> <p>"A working Macintosh PowerBook computer that appears to be off is in one of two power states: sleep (a "resting" state designed to conserve power) or shut down (off)." Macintosh User's Guide at 87.</p> <p>"System sleep is a power-conserving state in which your computer uses only the power it needs to maintain the contents of RAM. A computer in system sleep has a darkened screen and appears to be off, though it is still drawing battery power at a low level. When you're not using the computer, system sleep goes into effect automatically after a time interval that you designate."</p>



	Claim 1	Hitachi's Assertion	Prior Art - Macintosh PowerBook 140
			<p>3. In the "Minutes Until Automatic Sleep" box, drag the slider to set the number of minutes of inactivity before system sleep takes effect.</p>  <p>Macintosh User's Guide at 102-3.</p>

Accordingly, Apple's PowerBook 140 anticipates claim 1 of the '443 patent. Moreover, to the extent Hitachi argues that the PowerBook's keyboard is distinguishable from a touch-sensitive input device, by 1992 touch-input devices, including capacitive-sensing keyboards were well known. See e.g., U.S. Patent No. 4,733,222 (issued in 1988); see also, U.S. Patent No. 4,290,052 (issued in 1981) (disclosing a touch-pad with "'touch' electrodes, is adhesively fastened to the surface of the transparent, insulative substrate (formed of glass and the like) opposite that surface contactable by user personnel.") Accordingly, using capacitive-sensing touch keyboards in combination with the disclosed Sleep Mode in the PowerBook 140 would render obvious the '443 patent.

2. U.S. Pat. No. 8,311,389 (the '389 patent)

Hitachi alleges that Apple's iPhone 4/5 series and iPad / iPad 2 / iPad mini and iPad Air series infringe claim 5 of the '389 patent based on their ability to download and play rental movies from the iTunes store. The '389 patent has a priority date of December 13, 2000.

Apple's iOS devices do not fall within the scope of the claims of the '389 patent. As previously pointed out by Apple, the claim language requires receiving and recording "audio/video information." Downloading and storing mpeg-encoded digital data files is not receiving and recording audio/video information. The applicants specifically amended the claims to delete "digital" and replace it with "audio/video" information as suggested during and Examiner interview in order to overcome the prior art. The applicants stated that the claims overcome the 103 rejections because "the claims have been amended in the manner indicated/suggested during the examiner interview and Interview Summary" which indicated that such amendments would overcome the prior art. Accordingly, the removal of the "digital" information limitation in favor of the "audio/video" recitation is an unambiguous statement that "digital" information (disclosed in the prior art being overcome) is different and not within the scope of the claimed "audio/video" information. Moreover, the only embodiment disclosed in the specification relates to the recording of broadcasted television signals. If the claims were interpreted to cover downloading data files, enablement and written description invalidity issues would apply.

Further, the claims are invalid over the prior art. As previously stated, U.S. Patent No. 5,400,402 renders the claims obvious as now asserted by Hitachi. While the examiner considered the reference, in the conditions for allowance the examiner stated that the prior art references did not "teach or suggest in detail the disabling of reproduction ... where an elapsed time from the recording of the audio/video information is out of the first period even if the audio/video infor-



mation is initially accessed" within the second period. However, this two-time-period access limitation was well known in the prior art before December 2000. For example, U.S. Patent No. 5,023,741 (issued Jun. 11, 1991) teaches a programmable limited play video tape cassette in which "a movie or program is recorded on the tape 46 together with a disruptive code (FIG. 4)." The tape also includes an "IC module 64" that can be "programmed to set the play limit on the basis of time, for example a predetermined number of hours, a calendar period such as a particular date, or the number of times that the tape is played." The '741 patent teaches that in a typical rental arrangement, "[f]or example, the duplicator using a password not available to either the distributor or rental agent may program the IC module 64 to provide a play limit **at the end of six months.**" At the same time, the "rental agent may interrogate and reset a transaction counter in the IC module 64" for each rental. Thus, each rental would provide time limit for the tape but if a rental is made at the end of the distributor's six month limit, the IC module 64 would prevent reproduction even if the rental period was not over.

This same two-period restriction is disclosed in other prior art. For example, U.S. Pat. No. 5,629,980 ("Stefik") issued May 13, 1997, over a year before the earliest priority date of the '389 patent, teaches a system for controlling the distribution and use of digital works based on usage rights that allow the specification of multiple time periods. The following claim chart shows how the Stefik patent anticipates every limitation of claim 5 as Hitachi interprets those limitations:

	Claim 5	Hitachi's Assertion	Prior Art - U.S. Pat. No. 5,629,980 ("Stefik")
A	A recording and reproducing apparatus, comprising:	The phone is a recording and reproducing apparatus and has following elements.	<p>"A system for controlling use and distribution of digital works is disclosed. A digital work is any written, aural, graphical or video based work including computer programs that has been translated to or created in a digital form, and which can be recreated using suitable rendering means such as software programs. The present invention allows the owner of a digital work to attach usage rights to the work. The usage rights for the work define how it may be used and distributed. Digital works and their usage rights are stored in a secure repository."</p> <p>"FIG. 4b is an example of a computer system as a rendering system. A computer system may constitute a "multi-function" device since it may execute digital works (e.g. software programs) and display digital works (e.g. a digitized photograph)."</p> <p>"Herein the terms "digital work", "work" and "content" refer to any work that has been reduced to a digital representation. This would include any audio, video, text, or multimedia work and any accompanying inter-</p>



	Claim 5	Hitachi's Assertion	Prior Art - U.S. Pat. No. 5,629,980 ("Stefik")
			preter (e.g. software) that may be required for recreating the work."
B	a receiver which receives audio/video information;	As shown in figure 1, the phone receives a rental movie for downloading. Therefore, the phone has a receiver.	"A repository is comprised of a storage means for storing a digital work and its attached usage rights, an external interface for receiving and transmitting data, a processor and a clock. ... When operating in requester mode, the repository is requesting access to a digital work." "The repository transactions embody a set of protocols for establishing secure sessions connections between repositories, and for processing access requests to the digital works."
C	a recorder which records audio/video information received by the receiver to the recording medium; and	As shown in figures 1, 3 and 4, the phone records the downloaded rental movie. Therefore, the phone has a recorder.	"A repository is comprised of a storage means for storing a digital work and its attached usage rights, an external interface for receiving and transmitting data, a processor and a clock. ... When operating in requester mode, the repository is requesting access to a digital work."
D	a reproducer which reproduces audio/video information recorded by the recorder from the recording medium according to a control information related to the audio/video information, the control information including a first period for retaining the audio/video information on a recording medium and a second period for enabling reproduction of the audio/video infor-	As shown in figure 3, the phone reproduces the rental movie. And also, as shown in figure 2, the rental movie is reproduced according to control information which includes a first period, for example 30 days, for retaining the rental movie on the phone and a second period, for example 24 hours, for enabling reproduction of the rental movies after the movie is initially accessed for repro-	"FIG. 4b is an example of a computer system as a rendering system. A computer system may constitute a "multi-function" device since it may execute digital works (e.g. software programs) and display digital works (e.g. a digitized photograph)." "Generally, a repository will process each request to access a digital work by examining the work's usage rights."



	Claim 5	Hitachi's Assertion	Prior Art - U.S. Pat. No. 5,629,980 ("Stefik")
	<p>mation recorded on the recording medium after the audio/video information is initially accessed for reproduction from the recording medium,</p>	<p>duction.</p> <p>Therefore, the phone has a reproducer.</p>	<div data-bbox="846 346 1317 569"> <pre> Set-Of-Rights } ((Replace: Set-Of-Rights))((Keep: Set-Of-Rights)) 1510 ~ Copy-Count : = (Copies: positive-integer [0] Unlimited) 1511 ~ Control-Spec : = (Control: (Restrictable Unrestrictable) (Unchargeable Chargeable)) 1512 ~ Time-Spec : = ((Fixed-Interval Sliding-Interval Meter-Time) Until: Expiration-Date) 1513 ~ Fixed-Interval : = From: Start-Time 1514 ~ Sliding-Interval : = Interval: Use-Duration 1515 ~ Meter-Time : = Time-Remaining: Remaining-Use 1516 ~ Access-Spec : = ((SC: Security-Class) {Authorization: Authorization-ID*} {Other-Authorization: Authorization-ID*} {Ticket: Ticket-ID}) 1517 ~ Fee-Spec : = (Scheduled-Discount) Regular-Fee-Spec Scheduled-Fee-Spec Markup-Spec </pre> </div> <p>"The terms 'time' and 'date' are used synonymously to refer to a moment in time. There are several kinds of time specifications. Each specification represents some limitation on the times over which the usage right applies. The Expiration-Date specifies the moment at which the usage right ends. For example, if the Expiration-Date is 'Jan. 1, 1995,' then the right ends at the first moment of 1995."</p> <p>"Grammar element 1514 "Sliding-Interval:=Interval: Use-Duration" is used to define an indeterminate (or 'open') start time. It sets limits on a continuous period of time over which the contents are accessible. The period starts on the first access"</p> <p>"Grammar element 1515 "Meter-Time:=Time-Remaining: Remaining-Use" is used to define a "meter time," that is, a measure of the time that the right is actually exercised. ..."</p>
E	<p>wherein the reproducer enables reproduction of the audio/video information from the recording medium in a case where an elapsed time from the recording of the audio/video information is within the first period and an elapsed</p>	<p>As shown in figure 3, the phone allows to reproduce the rental movie when elapsed time from the downloading of the rental movie is within the 30 days and elapsed time from the initial access of the rental movie is within the</p>	<p>"Grammar element 1514 'Sliding-Interval:=Interval: Use-Duration' is used to define an indeterminate (or 'open') start time. It sets limits on a continuous period of time over which the contents are accessible. The period starts on the first access and ends after the duration has passed or the expiration date is reached, whichever comes first. For example, if the right gives 10 hours of continuous access, the use-duration would begin when the first access</p>



	Claim 5	Hitachi's Assertion	Prior Art - U.S. Pat. No. 5,629,980 ("Stefik")
	time from the initial access of the audio/video information is within the second period, and disables reproduction of the audio/video information from the recording medium in a case where an elapsed time from the recording of the audio/video information is out of the first period even if the audio/video information is initially accessed for reproduction at a timing when a remaining time of the first period is less than the second period and an elapsed time from the initial access of the audio/video information is within the second period.	24 hours. And also, as shown in figure 4, the phone does not allow to reproduce the rental movie when elapsed time from the downloading of the rental movie is out of the 30 days even if the rental movie is initially accessed for reproduction at a timing when a remaining time of the 30 days period is less than the 24 hours and elapsed time from the initial access is within the 24 hours.	was made and end 10 hours later." "Grammar element 1515 'Meter-Time:=Time-Remaining: Remaining-Use' is used to define a 'meter time,' that is, a measure of the time that the right is actually exercised. It differs from the Sliding-Interval specification in that the time that the digital work is in use need not be continuous. For example, if the rights guarantee three days of access, those days could be spread out over a month. With this specification, the rights can be exercised until the meter time is exhausted or the expiration date is reached, whichever comes first. "

Accordingly, because the accused iOS devices do not include the claimed receiver and recorder and if broadly interpreted as urged by Hitachi, the claims are invalid, Apple does not believe it needs a license to the '389 patent.

3. U.S. Pat. No. 6,748,317 ("the '317 patent")

Hitachi alleges that Apple's iPhone 4/5 series and iPad / iPad 2 / iPad mini and iPad Air series infringe claims 1, 15, and 17 of the '317 patent through the "walking directions" feature available in Apple Maps. The '317 patent claims priority to July 12, 1999. As an initial matter, Apple does not infringe the asserted claims because, as Hitachi's own allegations show, there is no single "display" image that displays all the required limitations of these claims. Specifically, the "said direction" limitation, which is at best ambiguous, appears to refer to the "direction information denoting an orientation of the terminal" of the prior element in the claim. That direction information is what Hitachi alleges is disclosed in the compass screen shot of its claims charts. But the "display" showing the compass is a different display than the display showing the map with a route. Thus



there is no single “display” with all the claimed elements: “destination,” “present place,” “relation of said direction,” and “direction from said present place to said destination.” Moreover, the map display does not display “a direction of movement by the arrow” as claim 15 requires and the compass display does not display “bent line using symbols denoting starting and ending points and displays symbols denoting said present place on said route” as claim 17 requires. Claim 15 is also indefinite because the term “the arrow” lacks antecedent basis. Therefore, none of the asserted claims is infringed by Apple.

In any case, the asserted claims of this patent are also invalid, particularly as Hitachi interprets them with respect to Apple’s iOS devices. For example, U.S. Pat. No. 6,133,853 (filed July 30, 1998 claiming priority to June 20, 1997) describes a personal communication and positioning system that anticipates every limitation of claims 1, 15, and 17 of the ‘317 patent:

	Claims	Hitachi’s Assertion	Prior Art - U.S. Pat. No. 6,133,853
A	1. A portable terminal, comprising:	The phone is a portable terminal and has following elements.	<p>“The PCD is a cellular-phone-sized electronic device, combining the capabilities of a GPS receiver, transceiver, digital beeper, cell phone and projection system into one compact unit.”</p>
B	a device for getting location information denoting a present place of said portable terminal;	<p>As shown in figures 1 and 2, the phone gets location information using data services such as GPS and cellular network.</p> <p>Therefore, the phone has a device for getting location information.</p>	<p>“The PCD is also capable of downloading information via a request to a data provider, ... the requested information is automatically downloaded to and stored in the memory of the user's PCD.”</p> <p>“The major components of the system comprises personal communication devices (PCDs) 20 and one or more of the following: a cellular phone network 60 The PCD receives signals from a GPS satellite system 10.”</p> <p>“The microprocessor may also access or control communications with telephone networks, either hardwired or cellular, radio transmissions, infra-red transmissions, or communications with other computer devic-</p>



	Claims	Hitachi's Assertion	Prior Art - U.S. Pat. No. 6,133,853
			<p>es."</p> <p>"The Location page comprises the current map, the location on the map of the device, and a plot of the trail of the device on the map."</p> <p>"The Location page indicates the PCD position 801, indicated by a walking person, as being located on a highway 810."</p>
C	a device for getting direction information denoting an orientation of said portable terminal;	<p>As shown in figures 1 and 3, the phone gets direction information using "Compass".</p> <p>Therefore, the phone has a device for getting direction information.</p>	<p>"The heading and directional information are displayed in real time and are dynamic."</p> <p>"The limited GPS information, providing location, heading and north, is also displayed."</p>
D	an input device for inputting a destination; and	<p>As shown in figure 4(b), the user can input a destination.</p> <p>Therefore, the phone has an input device.</p>	<p>"The caller requests specific information (location of gas stations, names of restaurants, local banks, etc.) via a voice command ("Download e.g., Wells Fargo Banks") or via digital commands using a keypad or other input device"</p> <p>"The PCD also has a [sic] alphanumeric key pad 26, which includes many of the standard keys generally found on computer key-boards. The location of the keys, and the selection of the characters used on a single key, may be varied as desired. The PCD also has specialized keys 27a-g, n related to GPS, telecommunications, and other functions."</p> <p>"The application module includes a GPS engine 53 providing GPS functions, including interfacing with the GPS receiver 243 (shown in FIG. 4). A query menu program 54 of the application module controls the graphical user interface and related functions for the device."</p> <p>"A waypoint 802 is along the highway en</p>



	Claims	Hitachi's Assertion	Prior Art - U.S. Pat. No. 6,133,853
			route to the desired destination address 803 located on a local street 804 which intersects the highway."
E	a display,	As shown in figures 1 and 4, the phone has a display. Therefore, the phone has a display.	"The PCD has a display 28a. The display may be of a LCD type or other types known in the art. Incorporated with the display is a touch screen input device 28b, which are known in the art." "The PCD can display a singular or a plurality of images and displays, project an image on to a screen or viewing surface, store or communicate data (depicted as a line, graphic, icon, etc.) to and/or receive latitude and longitude data from third parties."
F	wherein, said display displays [1] positions of said destination and said [2] present place, and a [3] relation of said direction and a [4] direction from said present place to said destination , and	As shown in figures 4(c) and (d), the phone displays a position of the destination in red point and a position of the present place of the phone in blue point. And also, the phone displays the direction of the phone and a route from the present place of the phone to the destination.	"The limited GPS information comprises of the user's location (latitude and longitude), an arrow pointing to north and an arrow indicating direction of device travel." "The sample page shown is an encoded map showing the device position [2], plot trail [4] and the encoded map location of the selected waypoint [1] The Location page indicates the PCD position 801 [2] , indicated by a walking person, as being located on a highway 810. A waypoint 802 is along the highway en route to [1] the desired destination address 803 located on a local street 804 which intersects the highway. ... The limited GPS information, providing location, [3] heading and north , is also displayed." "CRD location data may be used in conjunction with route information (plot trail) stored by the PCD." "FIG. 43 illustrates a PCD display showing a user's route 1300 comprised of multiple segments 1300a-d."

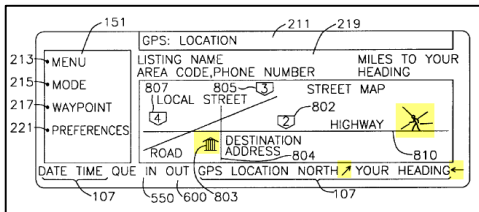


	Claims	Hitachi's Assertion	Prior Art - U.S. Pat. No. 6,133,853
G	said display changes according to a change of said direction of said portable terminal orientation for walking navigation.	As shown in figures 4(c) and (d), the display of the phone is changed according to the direction of the phone for walking navigation.	<p>"The heading and directional information are displayed in real time and are dynamic."</p> <p>"The location information is dynamic and updated periodically by the PCD's communication system via link-up with GPS-based satellites. The Location page indicates the PCD position 801, indicated by a walking person, as being located on a highway 810. ... The limited GPS information, providing location, heading and north, is also displayed. The illustrated Location page display shows only one possible combination of a map layout. Other display sequences such as North up, course up, user at top of screen, user in middle, and other display sequences are possible. The dynamic nature of the PCD allows the PCD to display GPS encoded maps as the PCD progresses dynamically with relation to the maps."</p>
H	15. A portable terminal with walking navigation according to claim 1, further comprising:		
I	a device for retrieving a route from said present place to said destination, wherein	<p>As shown in figures 1 and 4, the phone retrieves the route using the data services.</p> <p>Therefore, the phone has a device for retrieving a route.</p>	<p>"The map displayed could be from on-board memory or sent by other third parties by way of communication links to the PCD. When map data files are encoded with location information, the location information can be referred to as waypoints. These tagged waypoints, with links to other data structures, can then be sent to users via an application to various communication systems. Closed-loop or proprietary GPS receivers can send/receive data to/from other third parties (Brand X, Brand Y) via their own proprietary format using an application system as a universal converter. The location information is dynamic and updated periodically by the PCD's communication system via link-up with GPS-based satellites."</p> <p>"Upon receiving a request for data, the data</p>



	Claims	Hitachi's Assertion	Prior Art - U.S. Pat. No. 6,133,853
			<p>provider determines the nature of the data request, searches the appropriate data base or data bases, and transmits the requested information to the requesting device in the manner specified by the requesting device."</p> <p>"FIG. 37 illustrates a process for using the route information stored by the PCD to obtain information concerning the availability of condition reporting devices from the central computer system along the route stored by the PCD."</p> <p>"In step 1246 the central computer system transmits condition reporting device locations along the route to a PCD."</p> <p>"In one embodiment, users of a PCD then direct the PCD device to obtain digital text, graphical maps, and GPS location information from the cell site telephone number. This information may then be used by the user of the PCD device to determine route information and to obtain data in the same manner as from other GPS tagged data providers."</p>
J	said display displays said route and displays a direction of movement by the arrow.	As shown in figures 4(c) and (d), the phone displays the route and the direction of the phone by the arrow if the user taps icon.	<p>"FIG. 38 illustrates a display of a PCD displaying a trail plot with condition reporting device locations. As illustrated, the trail plot is indicated by a thick line. The thick line follows a first route 1262 until the first route intersects a second route 1260. The plot trail thereafter follows the second route. The locations of condition reporting devices 1264a-b are indicated along the route by star symbols (*)."</p> <p>"The limited GPS information comprises of the user's location (latitude and longitude), an arrow pointing to north and an arrow indicating direction of device travel."</p>



	Claims	Hitachi's Assertion	Prior Art - U.S. Pat. No. 6,133,853
K	17. A portable terminal with walking navigation according to claim 15,		
L	wherein said display displays said route with a bent line using symbols denoting starting and ending points and displays symbols denoting said present place on said route.	As shown in figures 4(c) and (d), the phone displays the route with a bent line. Also, the route has starting point in green and ending point in red. Furthermore, the phone displays the present place in blue on the route.	<p>"The Location page indicates the PCD position 801, indicated by a walking person, ..."</p> <p>"FIG. 38 illustrates a display of a PCD displaying a trail plot with condition reporting device locations. As illustrated, the trail plot is indicated by a thick line. The thick line follows a first route 1262 until the first route intersects a second route 1260. The plot trail thereafter follows the second route. The locations of condition reporting devices 1264a-b are indicated along the route by star symbols (*)."</p> 

Many other prior art references anticipate or render obvious the claims of the '317 patent. For example, U.S. Pat. No. 6,222,485 discloses the use of orientation in mobile navigation equipment in which "[t]he processor adjusts the orientation of the map display to reflect the calculated heading of the adjacent thoroughfare. The processor continues to update the current position and the heading of the map display on a real time basis."

Accordingly, Apple does not believe it infringes the claims of the '317 patent or that they are valid and hence Apple does not need a license to the '317 patent.

4. U.S. Pat. No. 6,898,078 ("the '078 patent")

Hitachi alleges that the iPhone 4 series infringe claim 1 of the '078 patent. The '078 patent claims priority to April 23, 1997. As an initial matter, the claims of the '078 patent are invalid because they recite new matter that was not disclosed in the original application and similarly the claims



lack written description support in the specification. In a preliminary amendment, claims 1-16 were canceled and new claims 17-27 were added. The new claims introduced an “I/O device” limitation which was not disclosed in the written specification or canceled claims. Thus, these claims are invalid.

In addition, claim 1 is invalid over the prior art. As Apple has previously explained, U.S. Pat. No. 5,931,929 (EP 0853414) anticipates all the elements of claim 1. Hitachi argues that the ‘929 patent to Tran does not “disclose or suggest sending electric power with respect to said I/O device to the docking station via the connector” because one embodiment of the ‘929 patent specification notes that the laptop computer is battery-operated while apart from the docking station and power from the docking station when docked. First, whether the laptop operates from the battery or the dock is irrelevant. The claim simply requires sending and receiving “electric power” not what the electric power must be used for. Moreover, the ‘929 patent specification specifically discloses this sending and receiving of electric power through the connector: “Connection to the elements of the docking station 11 is by the multiconductor plug-in connector 12 which conveys **both logic voltages and power supply voltages to and from** the docking station.” Col. 6, lines 4-7. Thus, the ‘929 patent anticipates claim 1.

5. U.S. Pat. No. 8,214,459 (“the ‘459 patent”)

Hitachi alleges that Apple’s iPhone 4/5 series and iPad / iPad 2 / iPad mini and iPad Air series in combination with the Apple TV infringe claim 1. Apple’s devices do not infringe claim 1 for several reasons.

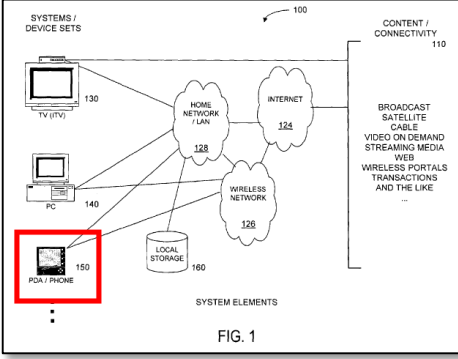
As previously explained by Apple, the iOS devices do not transmit the content from the iOS device to the Apple TV. Contrary to Hitachi’s argument, the applicants clearly disavowed claim scope to cover systems that do not transmit the content from the terminal to the external device. The applicants explained that they had “added the new claim set to clarify the foregoing concepts [including the direct transmission of the content from the current terminal to other (external) terminal].” Accordingly, Apple believes the claims require the “direct transmission of the content” as the applicants told the Examiner.

In addition, the alleged portable terminal of claim 1, the iOS device, as made and sold by Apple does not include “an operation unit” that receives a first user operation, a second user operation, and a third user operation as required by claim 1. Moreover, Hitachi alleges that the Apple TV corresponds to the claimed “external device” but the Apple TV cannot display video content and therefore it cannot be the external device of claim 1. To the extent Hitachi accuses the display of content on television sets connected to an Apple TV, Apple does not make or sell television sets.

The ‘459 patent claims priority to September 26, 2007. By then, the content display switching claimed in the ‘459 patent was well known. Prior art anticipates claim 1 of the ‘459 patent. For example, U.S. Pat. No. 7,987,491 (filed on May 8, 2003) clearly discloses all the limitations of claim 1, particularly as Hitachi asserts the claim.

	Claim 1	Hitachi’s Assertion	Prior Art - U.S. Pat. No. 7,987,491 (“Reisman”)
A	A portable terminal, comprising	The phone is a portable terminal and has follow-	“Varying form factors of different TV devices and of the range of PCs, PDAs, tablets, and Internet appliances may also affect what tasks a user



	Claim 1	Hitachi's Assertion	Prior Art - U.S. Pat. No. 7,987,491 ("Reisman")
	ing:	ing elements.	<p>wants to do on what device, with what UI."</p> <p>"Additional computer-like systems are Internet appliances, perhaps taking the form of 'webpad' tablet devices, and wireless phones and pagers, which are gradually converging with PDAs."</p> 
B	a display unit which displays a video content;	<p>As shown in figure 1 and 3(a)(b), the phone has a display for displaying a video content.</p> <p>Therefore, the phone has a display unit.</p>	<p>"'Lean forward' device sets refer to devices designed for intensive interaction and use in close proximity to a user, for 'close work,' such as PC devices, including display monitors, keyboards, mice, touchscreens, and the like."</p> <p>"'Personal Digital Assistant' (PDA) refers to a wide range of handheld and portable devices that provide PC-like capabilities in a reduced size and weight form factor, typically with small screens and no keyboard. 'Tablet' may refer to a complete system that provides an intermediate form factor, with a screen, and a touchpad or stylus interface and possibly including a compact keyboard, but can also refer to a similar device that serves as terminal to a base system."</p> <p>"'Video data' refers to all forms of moving-images, with or without accompanying sound, including analog and digitally coded video, television, Internet television or IPTV or IP video, film, animation, virtual reality data, hybrid natural and synthetic video data, and the like."</p> <p>"Use of video on PDAs and phones is not yet common, but is expected to become so."</p>



	Claim 1	Hitachi's Assertion	Prior Art - U.S. Pat. No. 7,987,491 ("Reisman")
C	a communication unit which performs radio communication with an external device;	As shown in figure 2, the phone can communicate with Apple TV wirelessly. Therefore, the phone has a communication unit.	"A number of typically independent systems, are represented (having associated device sets not shown here in detail), including TV or ITV system 130 , PC 140 , and PDA and/or phone 150 , and the like These systems may connect to each other and the outside world via a home network or LAN (local area network) or hub 128, which may use wired and/or wireless technology . Auxiliary services may also be provided by a home gateway server, which may be combined with the LAN, STB, PC, or other device capable of acting as a server, and with other service components. External connections may be made directly from a single system, as shown for cable 122 connecting to the TV (STB), but may preferably be connected to a home network to facilitate shared use by multiple systems, as shown for the connection to the Internet 124, and connection to wireless network 126 (which could also be an Internet connection, such as using Mobile IP)."
D	an operation unit which receives a user operation from a user; and	As shown in figure 1, the phone has a touch-screen for receiving a user operation. Therefore, the phone has an operation unit.	"'Lean forward' device sets refer to devices designed for intensive interaction and use in close proximity to a user, for 'close work,' such as PC devices, including display monitors, keyboards, mice, touchscreens , and the like."
E	when the operation unit receives a first user operation instructing video content to be displayed on the external device during displaying of the video content on the display unit, a control unit which controls the communication unit such that identifica-	As shown in figures 3(c) to (e), when the user taps button and selects "Apple TV" during displaying the content on the phone, the content is displayed on HDTV using Apple TV. And also, Apple TV can directly receive the same content which is being displayed on the phone. Moreover, the content starts to be displayed on the HDTV from the scene until which the	"Given a request to transfer one or more sessions from A to a specific system B, a transfer state record 450, shown here for session A1, can be assembled. This includes only the relevant data to the specified sessions, and only the subset of that state data that is relevant to the capabilities of system B. This portable state information can then be used to add an equivalent session A1 to system B." "One way is that a user at one system requests that one or more sessions be migrated or transferred from a system A to a system B . For the example shown, a user at system A interacts through available user interface (UI) controls to conduct a session, and then makes a request to migrate a session to system B." "State importer/exporter/tracker service compo-



	Claim 1	Hitachi's Assertion	Prior Art - U.S. Pat. No. 7,987,491 ("Reisman")
	<p>tion information identifying the video content and state information on display state are transmitted to the external device in order to permit viewing of the video content, which is being displayed on the display unit, on the external device, wherein:</p>	<p>content had been displayed on the phone.</p> <p>Therefore, the phone has a control unit and transmits identification information and state information to Apple TV.</p> <p>(Every iPhone is automatically connected to any Apple TV without any setting.)</p>	<p>nent 540 provides these services. In the example of a user at system A requesting that session A1 swing to system B, this request is processed by the exporter services on system A 540, which extracts the portable state, creates a transfer state record 550, and passes it to system B 560."</p> <p>"The process begins on system A with an interactive session in progress (step 605), in this case a browser session A1. A transfer request to transfer the browser session A1 to system B is initiated by reception of some trigger event (step 610). Typical trigger events include a user request to re-target an ending resource or to duplicate the current resource to the target system, whether to a new window or an existing window. ... To prepare for that, a transfer state record is assembled by exporter/importer/tracker for browser session A1 (step 615). With all necessary information on the session to be transferred assembled and packaged for transfer, that state record with any associated information is exported to system B (step 620). This may be done by direct communication to system B, or via some intermediary controller system. Depending on options selected, the session A1 at system A may be terminated, left in as is to continue independent of the transferred version A1 running on system B, or, if collaboration/synchronization features are supported, tracking may be applied to keep the two sessions synchronized as events occur on either or both of system A and B. In the case of such tracking, the exporter/importer/tracker on system A exports similar state records (or simplified event records) to echo all relevant interaction events to system B (and imports any corresponding events from system B, as noted below) (step 625)."</p> <p>"The state record can also include time-position information and more specific address details on the current program resource to accommodate various kinds of programs, including stored resources, video-on-demand, streamed content, advanced feature states such as camera angles, second audio program, closed-caption, and the like, as well as other details, such as any that might be relevant to a link arc, including perhaps an anchor position or region, a pointer position</p>



	Claim 1	Hitachi's Assertion	Prior Art - U.S. Pat. No. 7,987,491 ("Reisman")
			<p>or area of focus, and/or the like."</p> <p>"For simple video there is less context or state information needed, with one element being the identity of the program and another element being the time position within the program."</p>
F	<p>when the communication unit transmits the identification information and the state information to the external device, the control unit controls the display unit to:</p> <p>terminate the display of the video content on the display unit, and</p> <p>display information on the display unit for receiving a second user operation to operate the video content displayed on the external device,</p>	<p>As shown in figure 3(e), after transmitting the identification information and the state information, the phone terminates the display of the content.</p> <p>And also, the phone displays button for receiving the user operation to operate the content displayed on the HDTV.</p> <p>Therefore, the control unit controls the display unit to terminate the content and to display the information on the phone.</p>	<p>"Depending on options selected, the session A1 at system A may be terminated, left in as is to continue independent of the transferred version A1□ running on system B, or, if collaboration/synchronization features are supported, tracking may be applied to keep the two sessions synchronized as events occur on either or both of system A and B."</p> <p>"Thus a PDA acting as an independent but coordinated browser in conjunction with an ITV system could be considered independent and a separate device set in that use (being a peer processor), but to the extent that it also serves directly in emulation of a standard remote to the ITV system by sending standard remote control commands as activated by a user (as a simple I/O device), that use could be considered dependent in relation to the ITV system controller and thus part of the ITV device set."</p> <p>"□Coordinating-Remote: The usual dedicated remote control could be replaced by a PDA (or tablet or other PC-like device) that has IR (or other suitable) signaling capability and is programmed to act as the remote, thus allowing integration of the liberator functions with the remote control and optionally with the target PC/PDA device (i.e., itself or another device)."</p>
G	<p>when the operation unit receives the second user operation to operate the video content after the display of the video content on the display unit is terminat-</p>	<p>As shown in figure 3(f), when the user taps button, the content displayed on the HDTV is rewind.</p> <p>Therefore, the phone transmits the user instruction to the HDTV using Apple TV.</p>	<p>"Depending on options selected, the session A1 at system A may be terminated, left in as is to continue independent of the transferred version A1□ running on system B, or, if collaboration/synchronization features are supported, tracking may be applied to keep the two sessions synchronized as events occur on either or both of system A and B."</p> <p>"Thus a PDA acting as an independent but coordinated browser in conjunction with an ITV sys-</p>



	Claim 1	Hitachi's Assertion	Prior Art - U.S. Pat. No. 7,987,491 ("Reisman")
	ed, the control unit controls the communication unit to transmit an instruction according to the second user operation, and		<p>tem could be considered independent and a separate device set in that use (being a peer processor), but to the extent that it also serves directly in emulation of a standard remote to the ITV system by sending standard remote control commands as activated by a user (as a simple I/O device), that use could be considered dependent in relation to the ITV system controller and thus part of the ITV device set."</p> <p>"From the perspective just described, however, it will be apparent that in a centrally controlled system or in a fully synchronized system that gives the virtual effect of centralization, detailed implementation of the methods described might be such that the session might only appear to be terminated. Such might be the case, for instance, where just one underlying session is maintained, one that is to be presented in different views to each device set, but which is no longer to be presented to the user on the source device set. Similarly, establishment of the newly transferred session might just be a matter of making it visible. Except where stated otherwise or clear from context, such references to session termination or establishment should be understood as including embodiments in which it is just the appearance of the session that is terminated or established."</p> <p>"[Coordinating-Remote: The usual dedicated remote control could be replaced by a PDA (or tablet or other PC-like device) that has IR (or other suitable) signaling capability and is programmed to act as the remote, thus allowing integration of the liberator functions with the remote control and optionally with the target PC/PDA device (i.e., itself or another device)."</p> <p>"A configuration suggested as the Coordinating-Remote type can be applied as a straightforward variation on any of the prior cases, one in which the function of the remote is subsumed by a PDA (or tablet or the like). Here the signaling control need not be inserted between the STB and remote control, but can be integrated with the remote control device. The task of making the PDA work as a remote follows the existing ex-</p>



	Claim 1	Hitachi's Assertion	Prior Art - U.S. Pat. No. 7,987,491 ("Reisman")
			<p>ample of the OmniRemote software for the Palm. Relaying to the PDA (if the PDA is the target device), and shielding of the STB from undesired interaction signals can all be done internal to the PDA. In simple such embodiments, the only need for special support at the STB is for cases where a content signal must be passed from the STB (the TV-sourced cases), and such a device could be simpler than the ones that handle control signaling as well. If the target device to be coordinated is some system other than the PDA that acts as the remote control, then relay functions to that device from the PDA/remote could be included as for the above cases."</p> <p>"This relay could be usable in support of coordinated viewing and interaction, and supplementary to the coordination of remote control interactions outlined previously, using currently available PC/PDA devices."</p>
H	<p>when the operation unit receives a third user operation instructing video content to be displayed on the display unit during displaying of the video content on the external device, the control unit controls the communication unit such that information related to the third user operation is transmitted to the external device in order to permit viewing of the video content, which is being displayed on the external</p>	<p>As shown in figures 3(g) to (i), when the user taps button and selects "iPhone" during displaying the content on the HDTV, the content is displayed on the phone.</p> <p>Therefore, the phone transmits information related to the user operation to Apple TV.</p>	<p>"Embodiments of these methods can allow that transfers be triggered from either the source or the target device set. One case, as described above, is a "push" trigger that is activated while browsing on the originating (source) device set. The alternative case, which can be provided as a complementary feature, could permit the user to act from the target device to trigger a "pull." In this case, instead of system B waiting to receive a transfer request, a command on the as-yet-uncoordinated PC could actively request the transfer from the TV, signaling to the TV's exporter to send a state record back."</p> <p>"Pull transfers can also be supported during fully interactive sessions (on all kinds of device sets), including the same functions as described for push transfers, and with the same flexibility in specifying whether the original session is to be terminated or left as is (or put into collaborative synchronization)."</p>



	Claim 1	Hitachi's Assertion	Prior Art - U.S. Pat. No. 7,987,491 ("Reisman")
	device, on the display unit.		

Note that regardless of whether the claims require the direct transfer of content or not, the Reisman patent discloses either approach:

In a hypothetical distributed configuration, for example, an intelligent tablet or monitor device could be considered independent of a supporting PC if the tablet runs its own browser (such as under Windows CE) to obtain hypermedia resources in resource format (such as HTML) and render them into presentation format for display (such as display buffer image format), and could be considered not independent of the PC if it is driven as a replicated display by the PC, with **rendering controlled by a browser at the PC and using a technology such as Windows Terminal Services (WTS) or the like, to transfer the resultant presentation to the tablet at the level of display buffer image format (or coded changes thereto).**

Accordingly, because Apple does not infringe the '459 patent and it is invalid, Apple does not believe a license is required.

In sum, based on our analysis, it does not appear that Apple is using any technology covered by a valid Hitachi Maxell patent.

Sincerely,

Heather Mewes
Senior Counsel, IP Transactions
IP & Licensing Group