# **EXHIBIT C**

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## IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF FLORIDA

Case No. 1:10cv023580-Civ-UU

## MOTOROLA MOBILITY, INC.,

Plaintiff,

v.

APPLE INC.,

Defendant.

APPLE INC.,

Counterclaim Plaintiff,

v.

MOTOROLA, INC. and MOTOROLA MOBILITY, INC.,

Counterclaim Defendants.

## JURY TRIAL DEMANDED

## DEFENDANTS MOTOROLA SOLUTIONS, INC. (f/k/a MOTOROLA, INC.) AND MOTOROLA MOBILITY, INC.'S INVALIDITY CONTENTIONS TO APPLE INC.

Pursuant to the Court's Preliminary Pretrial Conference Order and agreements between the parties, Defendants Motorola Solutions, Inc. (f/k/a Motorola, Inc.) and Motorola Mobility, Inc. (collectively, "Motorola") submit preliminary invalidity contentions for U.S. Patent Numbers 5,583,560 ("the '560 Patent"), 5,594,509 ("the '509 Patent"), 5,621,456 ("the '456 Patent"), 6,282,646 ("the '646 Patent"), 7,380,116 ("the '116 Patent"), and 7,657,849 ("the '849 Patent"), (collectively, the "Apple Asserted Patents").

## PRELIMINARY STATEMENT, RESERVATION OF RIGHTS, AND GENERAL OBJECTIONS

1. This disclosure is directed to preliminary invalidity and unenforceability issues only and does not address claim construction or non-infringement. Motorola reserves all rights with respect to such issues, including but not limited to its position that claims of the Apple Asserted Patents are to be construed in a particular manner and are not infringed.

2. These invalidity contentions are preliminary and are based on Motorola's current knowledge, understanding, and belief as to the facts and information available as of the date of these contentions. Motorola has not yet completed its investigation, discovery, or analysis of information related to this action, and additional discovery may require Motorola to supplement or amend its invalidity contentions. For instance, Apple has failed to produce a number of relevant materials from previous litigations with HTC and Nokia which include many of the Apple patents asserted in this action. While Motorola has made a good-faith effort to provide a comprehensive list of prior art relevant to this case, Motorola reserves the right to modify or supplement its prior art list and invalidity contentions at a later time with or based upon pertinent information that may be subsequently discovered. Moreover, discovery is ongoing and Motorola reserves the right to pursue all other defenses that may be available to it, including but not limited to defenses that the Apple Asserted Patents are unenforceable based on laches, estoppel,

waiver, acquiescence, inequitable conduct, patent misuse, patent exhaustion, express or implied license, or any other grounds.

3. Any invalidity analysis depends, ultimately, upon claim construction, which is a question of law reserved for the Court. The claims have not yet been construed by the Court in this case and, thus, Motorola has not yet had the opportunity to compare the asserted claims of the Apple Asserted Patents (as construed by the Court) with the prior art. Motorola reserves the right to amend, supplement, or materially modify its invalidity contentions after the claims have been construed by the Court. Motorola also reserves the right to amend, supplement, or materially modify its invalidity contentions based on any claim construction positions that Apple Inc. may take in this case. Motorola also reserves the right to assert that a claim is indefinite, not enabled, or fails to meet the written description requirement based on any claim construction the Court may adopt in this case.

4. Motorola's invalidity contentions are directed to the claims asserted by Apple that are identified in their May 18, 2011 supplemental response to Motorola's Interrogatory No. 6. In the supplemental response, however, Apple states that "Apple expressly reserves the right to amend, supplement, and/or correct its response to this interrogatory as additional information becomes available to Apple during the course of its discovery and investigation, in response to any claim construction by the Court, or in response to Counterclaim-Defendants' responses to Apple's interrogatories (or any supplement thereto)." Motorola therefore reserves the right to modify, amend, supplement or otherwise alter its preliminary invalidity contentions in the event that Apple supplements its infringement contentions or take a claim construction position that is different than or in addition to those set forth in their infringement contentions, or for any other

reason constituting good cause to modify, amend, supplement or otherwise alter these invalidity contentions.

5. Motorola further contends that Apple appears to be pursuing overly broad constructions of the asserted claims of the Apple Asserted Patents in an effort to piece together an infringement claim where none exists and to accuse products that do not practice the claims as properly construed. At the same time, Apple's infringement contentions are in most places too general and vague to discern exactly how Apple contends each accused product practices each element of the asserted claims. Accordingly, these invalidity contentions are not intended to be, and are not, an admission that the asserted claims are infringed by any of Motorola's products or technology, that any particular feature or aspect of any of the accused products practices any elements of the asserted claims, or that any of Apple's proposed constructions are supportable or proper. To the extent that any of the prior art references disclose the same functionality or feature of any of the accused products, Motorola reserves the right to argue that said feature or functionality does not practice any element of any of the asserted claims, and to argue, in the alternative, that if said feature or functionality is found to practice any element of any of the asserted claims of the Apple Asserted Patents, then the prior art reference demonstrates that that element is not novel to the invention and is not patentable.

6. Attached hereto as Exhibits A-F are representative claim charts that demonstrate how the asserted claims of the Apple Asserted Patents are invalid in view of certain prior art. The references cited in Exhibits A-F may disclose the limitations of the asserted claims of the Apple Asserted Patents either expressly and/or inherently. Moreover, some of the suggested anticipation and obviousness contentions may be in the alternative to Motorola's anticipated contentions. These contentions should not be construed to suggest that Motorola is relying on

any claim construction, and should not be construed to suggest that any reference included in any combination is not anticipatory in its own right.

7. In this action, Apple asserts that Motorola infringes certain claims of the Apple Asserted Patents. Although Apple asserts that these claims are either literally infringed or infringed under the doctrine of equivalents, Apple has failed to provide any analysis or explanation regarding alleged infringement of the asserted claims of the patents-in-suit under the doctrine of equivalents. Motorola reserves its rights to modify, amend, supplement or otherwise alter its preliminary infringement contentions in the event Apple is permitted to modify, amend, supplement, or clarify their infringement contentions with respect to direct infringement (literal and under the doctrine of equivalents).

8. Motorola is providing preliminary invalidity contentions only for the claims currently asserted by Apple and for which Apple has provided Motorola a claim chart of its infringement contentions, but hereby reserves the right to seek invalidation of any claims later asserted by Apple and/or of all claims in each of the Apple Asserted Patents.

9. Motorola reserves the right to modify, amend, or supplement these disclosures as additional information becomes available, and as its discovery and investigation proceed.

#### I. The '560 Patent

#### A. Identification of Prior Art

At this time, Motorola contends that at least the following prior art references anticipate or render obvious, either alone or in combination, the asserted claims of the '560 Patent:

# 1. Patent References<sup>1</sup>

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	4,703,423	October 27, 1987	July 10, 1984	Charles W. Bado Randy Detrick
USA	4,706,121	November 10, 1987	July 12, 1985	Patrick Young
USA	4,751,578	June 14, 1988	May 28, 1985	Eli Reiter Michael H. Zemering Frank Shannon
USA	4,807,052	February 21, 1989	October 5, 1987	Toshio Amano
USA	4,845,564	July 4, 1989	April 16, 1987	Kunio Hakamada Shizuo Hanamura Osamu Oda Toshio Amano
USA	5,057,915	October 15, 1991	March 10, 1986	Henry Von Kohorn
USA	5,093,726	March 3, 1992	June 20, 1989	Yu J. Chun
USA	5,161,019	November 3, 1992	June 29, 1990	Peter M. Emanuel
USA	5,194,954	March 16, 1993	June 29, 1990	David J. Duffield
USA	5,218,672	June 8, 1993	January 19, 1990	Donald E. Morgan Ted Langford Andrew Leary Dave Wheeler Jon Graham Doug Kuper
USA	5,251,034	October 5, 1993	July 9, 1991	Un-huei Na
USA	5,347,274	September 13, 1994	May 17, 1990	John J. Hassett
EP	0,239,884	September 29, 1993	April 4, 1986	Charles Thomas Ruthefoord Nancy S. Frank

<sup>&</sup>lt;sup>1</sup> Motorola incorporates by reference all prior art references cited in the patents listed herein and/or their file histories.

Country	Patent	Issue Date	Priority Date	Patentee(s)
EP	0,337,336	December 14, 1994	April 15, 1988	Felix Aschwanden
EP	0,393,555	September 20, 1995	April 21, 1989	Bruno Emanuel Hennig
EP	0,366,001	May 2, 1990	October 25, 1988	Gene Harlow Johnson
EP	0,396,062	October 23, 1996	May 5, 1989	Terrence H. Pocock Rick McNorgan Peter Coumans Allan Lodberg
EP	0,420,123	July 19, 1995	September 27, 1989	Takeshi Fujita Tatsuaki Domura
EP	0,512,377	September 3, 1997	May 6, 1991	Mark Francis Rumreich
JP	3,186,085	August 14, 1991	December 15, 1989	Yasushi Suzuki Nobuaki Takahachi Koji Kakimoto Masaaki Saito Toru Iwano
JP	\$63-253131	February 19, 1990	October 7, 1988	Kazuo Hashimoto
JP	H4-350995	June 24, 1994	December 4, 1992	Shinichi Kuromoto Kazuyoshi Sugai
USA	Re. 32,632	March 29, 1988	July 19, 1982	William D. Atkinson
USA	Re. 34,340	August 10, 1998	October 26, 1987	Michael J. Freeman
USA	4,290,142	September 15, 1981	February 22, 1979	Rolf Schnee Franz Kraus Friedrich Kiel Helmut Kliem Wolfgang Krick Herbert Landgraf
USA	4,381,522	April 26, 1983	December 1, 1980	Trevor Lambert
USA	4,533,910	August 6, 1985	November 2, 1982	Josef Sukonick Bjorn M. Fjallstam
USA	4,536,791	August 20,	March 31, 1980	John G. Campbell Carl F. Schoeneberger

Country	Patent	Issue Date	Priority Date	Patentee(s)
		1985		Allan B. Bundens Richard M. Fogle John R. Lemburg
USA	4,555,775	November 26, 1985	October 7, 1982	Robert C. Pike
USA	4,573,072	February 25, 1986	March 21, 1984	Michael J. Freeman
USA	4,622,545	November 11, 1986	September 30, 1982	William D. Atkinson
USA	4,641,205	February 3, 1987	March 5, 1984	Billy W. Beyers, Jr.
USA	4,748,618	May 31, 1988	May 21, 1986	Earl F. Brown Robert V. Kline
USA	4,750,036	June 7, 1988	May 14, 1986	Louis Martinez
USA	4,772,882	September 20, 1988	July 18, 1986	Robert J. Mical
USA	4,785,408	November 15, 1988	March 11, 1985	James T. Britton Lorraine Figueroa John F. Patterson Robert I. Rosenthal Richard R. Rosinski
USA	4,812,834	March 14, 1989	August 1, 1985	Charles H. Wells
USA	4,829,558	May 9, 1989	January 19, 1988	Russell J. Welsh
USA	4,847,604	July 11, 1989	August 27, 1987	Michael D. Doyle
USA	4,847,700	July 11, 1989	July 16, 1987	Michael J. Freeman
USA	4,873,623	October 10, 1989	May 15, 1987	Leslie A. Lane Lynn V. Lybeck David S. Perloff Shoji Kumagi
USA	4,884,223	November 28, 1989	March 22, 1988	Lloyd D. Ingle Henry V. Allen James W. Knutti
USA	4,890,320	December 26, 1989	June 9, 1988	H. Vincent Moslow Steven R. Dickey

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	4,899,136	February 6, 1990	April 28, 1986	Marian H. Beard Perry A. Caro Jennifer B. Hsiao Kevin J. Mackey James G. Sandman, Jr. Gary R. Steinbach Donald R. Woods
USA	4,914,517	April 3, 1990	April 6, 1989	David J. Duffield
USA	4,914,732	April 3, 1990	October 16, 1985	Walter G. Henderson John Q. Archer, II Gerald R. Daum George A. Ellson John E. Gray Wayne F. Larson Rockne M. Olds Jerry P. Scansen John W. Sherman Edgar J. Unrein
USA	4,931,783	June 5, 1990	July 26, 1988	William D. Atkinson
USA	4,935,865	June 19, 1990	June 2, 1988	Mark S. Rowe Charles E. Harper Charles R. Underwood
USA	4,937,821	June 26, 1990	January 21, 1986	David A. Boulton
USA	4,939,507	July 3, 1990	April 28, 1986	Marian H. Beard Perry A. Caro Jennifer B. Hsiao Kevin J. Mackey James G. Sandman, Jr. Gary R. Steinbach Donald R. Woods
USA	4,959,720	September 25, 1990	April 6, 1989	David J. Duffield Billy W. Beyers, Jr.
USA	4,963,994	October 16, 1990	December 14, 1981	Michael R. Levine
USA	4,977,455	Dec. 11, 1990	July 15, 1988	Patrick Young
USA	4,987,486	January 21, 1991	December 23, 1988	Lee R. Johnson Elizabeth A. Smith Harold L. Myers
USA	4,995,078	February 19,	June 9, 1988	H. Vincent Munslow

Country	Patent	Issue Date	Priority Date	Patentee(s)
		1991		Steven R. Dickey
USA	5,008,853	April 16, 1991	December 2, 1987	Sara A. Bly A. Brady Farrand Jeffery D. Hodges Michael D. Kupfer Brian T. Lewis William J. Maybury Michael L. Tallan Stephen B. Tom
USA	5,014,125	May 7, 1991	May 5, 1989	Terrence H. Pocock Rick McNorgan Peter Coumons Allan Lodberg
USA	5,047,867	September 10, 1991	June 8, 1989	Hugo J. Strubbe Donald R. Gentner
USA	5,062,060	October 29, 1991	January 5, 1987	Frank C. Kolnick
USA	5,072,412	December 10, 1991	March 25, 1987	D. Austin Henderson, Jr. Stuart K. Card John T. Maxwell, III
USA	5,081,534	January 14, 1992	August 10, 1988	Erich Geiger Rolf Schiering
USA	5,148,154	September 15, 1992	December 4, 1990	Michael T. MacKay Robert J. Berger Robert Duffy Ted E. Langford
USA	5,151,782	September 29, 1992	May 17, 1989	Andrew G. Ferraro
USA	5,151,789	September 29, 1992	October 30, 1989	Patrick Young
USA	5,155,806	October 13, 1992	March 15, 1989	Anthony Hoeber Alan Mundler Norman Cox Timothy Shea Rick Levine
USA	5,155,768	October 20, 1992	March 15, 1989	Anthony Hoeber Alan Mundler Norman Cox Timothy Shea Rick Levine

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	5,177,604	January 5, 1993	May 14, 1986	Louis Martinez
USA	5,195,092	March 16, 1993	August 4, 1987	Stephen D. Wilson Karl W. McCalley
USA	5,206,722	April 27, 1993	December 28, 1990	Shue-Yu Kwan
USA	5,210,611	May 11, 1993	August 12, 1991	Keen Y. Yee Gary W. Kibble
USA	5,220,420	June 15, 1993	September 27, 1990	W. Leo Hoarty Gary M. Lauder
USA	5,223,924	June 29, 1993	May 27, 1992	Hugo J. Strubbe
USA	5,236,199	August 17, 1993	June 13, 1991	John W. Thompson, Jr.
USA	5,239,540	August 24, 1993	November 27, 1990	Luis A. Rovira William E. Wall, Jr.
USA	5,247,347	September 21, 1993	September 27, 1991	Larry A. Litteral Jeffrey B. Gold Donald C. Klika, Jr. Daniel B. Konkle Carl D. Coddington James M. McHenry Arthur A. Richard, III
USA	5,253,066	October 12, 1993	June 1, 1990	Peter S. Vogel
USA	5,253,067	October 12, 1993	December 16, 1991	John W. Chaney James E. Halley
USA	5,283,819	February 1, 1994	April 25, 1991	James A. Glick Ronald B. Graczyk Albert F. Nurick Brittain D. Fraley
USA	5,323,240	June 21, 1994	February 7, 1992	Toshio Amano Mitsumasa Saitoh
USA	5,327,176	July 5, 1994	March 1, 1993	Joseph W. Forler John F. Teskey Michael D. Landis
USA	5,353,121	October 4, 1994	October 30, 1989	Patrick Young John H. Roop Michael W. Faber

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	5,357,276	October 18, 1994	December 1, 1992	Robert O. Banker Jeffrey B. Huppertz Michael T. Hayashi David B. Lett Voytek E. Godlewski Michael W. Raley
USA	5,367,316	November 22, 1994	March 28, 1992	Masao Ikezaki
USA	5,404,393	April 4, 1995	October 3, 1991	Roger Remillard
USA	5,410,326	April 25, 1995	December 4, 1992	Steven W. Goldstein
USA	5,434,626	July 18, 1995	September 10, 1991	Toshihide Hayashi Koki Tsumori
USA	5,438,372	August 1, 1995	September 10, 1992	Koki Tsumori Kiyoshi Ogawa
USA	5,479,266	December 26, 1995	September 10, 1990	Patrick Young John H. Roop Allan R. Ebright Michael W. Faber David Anderson
USA	5,914,706	June 22, 1999	March 22, 1989	Mitsuru Kono
USA	5,990,927	November 23, 1999	December 9, 1992	John S. Hendricks Alfred E. Bonner Richard E. Wunderlich Eric C. Berkobin
USA	6,181,335	January 30, 2001	December 9, 1992	John S. Hendricks Alfred E. Bonner Eric C. Berkobin
USA	App. No. 2004/0230992	November 18, 2004	May 27, 1993	Henry C. Yuen Roy J. Mankowitz Daniel S. Kwoh Elsie Y. Leung
WO	86/01962	March 27, 1986	September 21, 1984	Keith Lucas
WO	89/12370	December 14, 1989	June 9, 1988	Vincent H. Monslow Steven R. Dickey
WO	90/01243	February 8, 1990	July 22, 1988	Thomas A. Bush

Country	Patent	Issue Date	Priority Date	Patentee(s)
WO	91/18476	November 28, 1991	May 21, 1990	Gerald B. Cohen
WO	93/11638	June 10, 1993	November 29, 1991	Robert O. Banker Kinney C. Bacon Julius B. Bagley
WO	93/11639	June 10, 1993	November 29, 1991	Robert O. Banker Kinney C. Bacon Julius B. Bagley
WO	93/11640	June 10, 1993	November 29, 1991	Robert O. Banker Kinney C. Bacon Julius B. Bagley
USA	7,836,481	November 16, 2010	December 9, 1992	John S. Hendricks
СА	2,553,384C	November 3, 1992	September 10, 1990	Patrick Young John H. Roop Alan R. Ebright Michael W. Faber David Anderson
USA	5,479,268	December 26, 1995	September 10, 1990	Patrick Young John H. Roop Alan R. Ebright Michael W. Faber David Anderson
USA	5,734,853	March 11, 1998	December 9, 1992	John S. Hendricks Alfred E. Bonner Eric C. Berkobin
USA	App. No. 08/160,193	December 2, 1993	December 9, 1992	John S. Hendricks Alfred E. Bonner Eric C. Berkobin
USA	App. No. 08/160,281	December 2, 1993	December 9, 1992	John S. Hendricks Alfred E. Bonner Richard E. Wunderlich
USA	App. No. 08/160,282	December 2, 1993	December 9, 1992	John S. Hendricks Alfred E. Bonner
USA	App. No. 08/160,280	December 2, 1993	December 9, 1992	John S. Hendricks Alfred E. Bonner
USA	App. No. 08/160,283	December 2, 1993	December 9, 1992	John S. Hendricks Alfred E. Bonner John P. Lappington

Country	Patent	Issue Date	Priority Date	Patentee(s)
				Richard E. Wunderlich
USA	App.No. 07/991,074	December 9, 1992	December 9, 1992	John S. Hendricks
USA	5,798,785	August 25, 1998	December 9, 1992	John S. Hendricks Alfred E. Bonner Richard E. Wunderlich
USA	5,659,350	August 9, 1997	December 9, 1992	John S. Hendricks Alfred E. Bonner
USA	5,600,364	February 4, 1997	December 9, 1992	John S. Hendricks Alfred E. Bonner
USA	5,682,195	October 28, 1997	December 9, 1992	John S. Hendricks Alfred E. Bonner John P. Lappington Richard E. Wunderlich

# 2. Publications<sup>2</sup>

Title	Date	Author	Page(s) <sup>3</sup>
Experiences of Handling Multimedia in	March 1992	Nigel Davies	All
Distributed Open Systems		Geoff Coulson	
		Neil Williams	
		Gordon S. Blair	
Visualizing cleared-off desktops:	May 6, 1991	Michael Alexander	All
Scientists make on-screen desktop space			
larger with 3-D rooms and cone			
structures			
ClearFace: Translucent Multiuser	September	Hiroshi Ishii	All
Interface for TeamWorkStation	1991	Kazuho Arita	
Toward an Open Shared Workspace:	December	Hiroshi Ishii	All
Computer and Video Fushion Approach	1991	Naomi Miyake	
of TeamWorkStation			
Learning Considerations in User	July 1984	Patrick P. Chan	All
Interface Design: The Room Model			
IBM Technical Disclosure Bulletin:	March 1988	n/a	All
Creation/Modification of the Audio			

<sup>&</sup>lt;sup>2</sup> Motorola incorporates by reference all prior art references identified in the publications listed herein and/or their file histories.

<sup>&</sup>lt;sup>3</sup> Motorola reserves the right to rely on any and all pages of any disclosed publication. Representative page numbers are identified herein for convenience only.

Title	Date	Author	Page(s) <sup>3</sup>
Signal Processor Setup For a PC Audio			
Editor			
Browsing Within Time-Driven	March 1988	Stavros	All
Multimedia Documents		Christodoulakis	
		Stephen Graham	
Impact: An Interactive Natural-Motion-	1991	Hirotada Ueda	All
Picture Dedicated Multimedia Authoring		Takafumi	
System		Miyatake	
		Satoshi Yoshizawa	
IBM Technical Disclosure Bulletin:	December	n/a	All
Interactive Computer Conference Server	1991		
Tandy's Video Information System	May 1993	Tom Carlton	All
(VIS): Consumer electronics and desktop			
computing collide			

The prior art references, individually or combined, listed above demonstrate that the asserted claims of the '560 patent are invalid due to anticipation or obviousness.

Exemplary claim charts are attached as Exhibit A. These claim charts are not an exhaustive list of how the prior art references listed above invalidate the '560 patent. Motorola reserves the right to add prior art references to the above list and to Exhibit A, supplement or modify Exhibit A, and to prepare similar charts for other references.

## B. Invalidity Under 35 U.S.C. § 102 and/or § 103

Apple asserts claims 1, 2, 4-6, 8, 9, 11-13, and 15-16 of the '560 Patent against Motorola in this lawsuit. All of those claims are invalid because the '560 Patent fails to meet one or more of the requirements for patentability under 35 U.S.C. §§ 102 and/or 103. The individual bases for invalidity are provided below and in Exhibit A, and Motorola reserves the right to modify these bases. Each of the foregoing listed prior art documents, the underlying work, and/or the underlying apparatus or method qualifies as prior art under one or more sections of 35 U.S.C. § 102 and/or 35 U.S.C. § 103.

Although Motorola has identified at least one citation per limitation for each reference, each and every disclosure of the same limitation in the same reference is not necessarily identified. Rather, in an effort to focus the issues, Motorola has cited representative portions of identified references, even where a reference may contain additional support for a particular claim element. In addition, persons of ordinary skill in the art generally read a prior art reference as a whole and in the context of other publications and literature. Thus, to understand and interpret any specific statement or disclosure within a prior art reference, such persons would rely on other information within the reference, along with other publications and their general scientific knowledge. Moreover, when a reference explicitly incorporates the teachings and disclosures of other prior art in its specification, those teachings and disclosures are deemed to be part of the original reference itself. Motorola may rely upon uncited portions of the prior art references and on other publications and expert testimony to provide context, and as aids to understanding and interpreting the portions that are cited. Motorola may also rely on uncited portions of the prior art references, other disclosed publications, and the testimony of experts to establish that a person of ordinary skill in the art would have been motivated to modify or combine certain of the cited references so as to render the claims obvious.

Some or all of the asserted claims of the '560 Patent are invalid as anticipated under 35 U.S.C. § 102 in view of the prior art references identified above and in the claim charts included in Exhibit A, which identify specific examples of where each limitation of the asserted claims is found in the prior art references. As explained above, the cited portions of prior art references identified in the attached claim charts are exemplary only and representative of the content and teaching of the prior art references, and should be understood in the context of the reference as a whole and as they would be understood by a person of ordinary skill in the art.

To the extent any limitation is deemed not to be exactly met by an item of prior art listed above, then any purported differences are such that the claimed subject matter as a whole would have been obvious to one skilled in the art at the time of the alleged invention, in view of the state of the art and knowledge of those skilled in the art. The item of prior art would, therefore, render the relevant claims invalid for obviousness under 35 U.S.C. § 103(a).

In addition, the references identified above render one or more asserted claims of the '560 Patent obvious when the references are read in combination with each other, and/or when read in view of the state of the art and knowledge of those skilled in the art. Each and every reference identified is also relevant to the state of the art at the time of the alleged invention. Any of the references disclosed above may be combined to render obvious (and therefore invalid) each of Plaintiffs' asserted claims. Motorola may rely upon a subset of the above identified references or all of the references identified above, including all references in Exhibit A, for purposes of obviousness depending on the Court's claim construction and further investigation and discovery.

Motivations to combine the above items of prior art are present in the references themselves, the common knowledge of one of ordinary skill in the art, the prior art as a whole, and/or the nature of the problems allegedly addressed by the '560 Patent. Combining the references disclosed above and in Exhibit A would have been obvious, as the references identify and address the same technical issues and suggest very similar solutions to those issues. Motorola reserves the right to amend or supplement these preliminary invalidity contentions to identify additional reasons that combining the references would be obvious to one of ordinary skill in the art.

Motorola also reserves the right to amend or supplement these contentions regarding anticipation or obviousness of the asserted claims, in view of further information from Apple,

information discovered during discovery, or a claim construction ruling by the Court. Apple has not identified what elements or combinations it alleges were not known to one of ordinary skill in the art at the time. Therefore, for any claim limitation that Apple alleges is not disclosed in a particular prior art reference, Motorola reserves the right to assert that any such limitation is either inherent in the disclosed reference or obvious to one of ordinary skill in the art at the time in light of the same, or that the limitation is disclosed in another of the references disclosed above and in combination would have rendered the asserted claim obvious.

#### C. Other Grounds for Invalidity

Motorola identifies the following grounds for invalidity of the asserted claims of the '560 Patent based on 35 U.S.C. § 112. Motorola reserves the right to supplement these disclosures based on further investigation and discovery.

Motorola asserts that each asserted claim of the '560 Patent is invalid in that the '560 specification fails to particularly point out and distinctly claim the alleged invention of the '560 Patent. Motorola further asserts that each asserted claim of the '560 Patent is invalid as not containing a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the alleged invention.

Based on Motorola's present understanding of Apple's infringement contentions, Motorola asserts that claims 1, 2, 4-6, 8, 9, 11-13, and 15-16 of the '560 Patent are invalid for reciting at least the following claim terms/phrases:

- "program listing icon"
- "reminder icon"

- "continuing to depress"
- "reminder mark"
- "reminder indication"
- "control interface unit"
- "controller"
- "control means"
- "control interface unit"
- "in communication with said transceiver"
- "coupled to"
- "coupled together"
- "bus controller"
- "data bus"
- "interface generation means"
- "interface generator"
- "listing means"
- "list generator"
- "marking means"
- "marking"
- "mark button"
- "multiple levels of information"
- "listing channel"

These claim terms/phrases as apparently construed by Apple violate the written description,

enablement, and/or definiteness requirements of 35 U.S.C. § 112.

Based on Motorola's present understanding of Apple's infringement contentions, at least one or more of these claim terms/phrases are indefinite because they are inconsistent with and broader than the alleged invention disclosed in the specification and given Apple's apparent constructions of the claims, any person of ordinary skill in the art at the time of the invention would not understand what is claimed, even when the claims are read in light of the specification. Moreover, based on Motorola's present understanding of Apple's infringement contentions, each of the asserted claims in which these claim terms/phrases appear to lack written description because the specification of the '560 Patent demonstrates that the patentee neither conceived of nor demonstrated possession of all that Apple now contends the claims cover. In addition, based on Motorola's present understanding of Apple's infringement contentions, each of the asserted claims in which these claim terms/phrases appear are invalid because the specification fails to provide sufficient disclosure to enable any person of ordinary skill in the art to which it pertains, or with which it is most nearly connected, to implement the invention without undue experimentation. Therefore, the claims fail to satisfy the requirements of § 112.

The asserted claims of the '560 patent are also invalid under 35 U.S.C. § 101 because they only claim abstract ideas. Many limitations in the asserted claims are common abstractions in computer systems and programming languages.

#### **D.** Unenforceability

Motorola asserts that the '560 patent is unenforceable. This action is still in the early stages of discovery. Because unenforceability contentions often require investigation and analysis available only through fact discovery, Motorola reserves the right to amend or supplement its unenforceability contentions at a later time. For example, Motorola may amend

or supplement its unenforceability contentions after receiving information from Apple (or third parties) such as documents, discovery responses, and deposition testimony.

#### II. The '509 Patent

## A. Identification of Prior Art

At this time, Motorola contends that at least the following prior art references anticipate or render obvious, either alone or in combination, the asserted claims of the RE '509 Patent:

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	4,703,423	October 27, 1987	July 10, 1984	Charles W. Bado Randy Detrick
USA	4,706,121	November 10, 1987	July 12, 1985	Patrick Young
USA	4,751,578	June 14, 1988	May 28, 1985	Eli Reiter Michael H. Zemering Frank Shannon
USA	4,807,052	February 21, 1989	October 5, 1987	Toshio Amano
USA	4,845,564	July 4, 1989	April 16, 1987	Kunio Hakamada Shizuo Hanamura Osamu Oda Toshio Amano
USA	5,057,915	October 15, 1991	March 10, 1986	Henry Von Kohorn
USA	5,093,726	March 3, 1992	June 20, 1989	Yu J. Chun
USA	5,161,019	November 3, 1992	June 29, 1990	Peter M. Emanuel
USA	5,194,954	March 16, 1993	June 29, 1990	David J. Duffield

# 1. Patent References<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> Motorola incorporates by reference all prior art references cited in the patents listed herein and/or their file histories.

Country	Patent	Issue Date	Priority Date	Patentee(s)	
USA	5,218,672	June 8, 1993	January 19, 1990	Donald E. Morgan Ted Langford Andrew Leary Dave Wheeler Jon Graham Doug Kuper	
USA	5,251,034	October 5, 1993	July 9, 1991	Un-huei Na	
USA	5,347,274	September 13, 1994	May 17, 1990	John J. Hassett	
EP	0,239,884	September 29, 1993	April 4, 1986	Charles Thomas Ruthefoord Nancy S. Frank	
EP	0,337,336	December 14, 1994	April 15, 1988	Felix Aschwanden	
EP	0,393,555	September 20, 1995	April 21, 1989	Bruno Emanuel Hennig	
EP	0,366,001	May 2, 1990	October 25, 1988	Gene Harlow Johnson	
EP	0,396,062	October 23, 1996	May 5, 1989	Terrence H. Pocock Rick McNorgan Peter Coumans Allan Lodberg	
EP	0,420,123	July 19, 1995	September 27, 1989	Takeshi Fujita Tatsuaki Domura	
EP	0,512,377	September 3, 1997	May 6, 1991	Mark Francis Rumreich	
EP	0,532,322	March 17, 1993	September 9, 1982	Toshihide Hayashi Koki Tsumori	
JP	3,186,085	August 14, 1991	December 15, 1989	Yasushi Suzuki Nobuaki Takahachi Koji Kakimoto Masaaki Saito Toru Iwano	
JP	\$63-253131	February 19, 1990	October 7, 1988	Kazuo Hashimoto	
JP	H4-350995	June 24, 1994	December 4, 1992	Shinichi Kuromoto Kazuyoshi Sugai	
USA	Re. 32,632	March 29,	July 19, 1982	William D. Atkinson	

Country	CountryPatentIssue DatePriority Date		Patentee(s)	
		1988		
USA	Re. 34,340	August 10, 1998	October 26, 1987	Michael J. Freeman
USA	4,290,142	September 15, 1981	February 22, 1979	Rolf Schnee Franz Kraus Friedrich Kiel Helmut Kliem Wolfgang Krick Herbert Landgraf
USA	4,381,522	April 26, 1983	December 1, 1980	Trevor Lambert
USA	4,533,910	August 6, 1985	November 2, 1982	Josef Sukonick Bjorn M. Fjallstam
USA	4,536,791	August 20, 1985	March 31, 1980	John G. Campbell Carl F. Schoeneberger Allan B. Bundens Richard M. Fogle John R. Lemburg
USA	4,555,775	November 26, 1985	October 7, 1982	Robert C. Pike
USA	4,573,072	February 25, 1986	March 21, 1984	Michael J. Freeman
USA	4,622,545	November 11, 1986	September 30, 1982	William D. Atkinson
USA	4,641,205	February 3, 1987	March 5, 1984	Billy W. Beyers, Jr.
USA	4,748,618	May 31, 1988	May 21, 1986	Earl F. Brown Robert V. Kline
USA	4,750,036	June 7, 1988	May 14, 1986	Louis Martinez
USA	4,772,882	September 20, 1988	July 18, 1986	Robert J. Mical
USA	4,785,408	November 15, 1988	March 11, 1985	James T. Britton Lorraine Figueroa John F. Patterson Robert I. Rosenthal Richard R. Rosinski
USA	4,812,834	March 14, 1989	August 1, 1985	Charles H. Wells

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	4,829,558	May 9, 1989	January 19, 1988	Russell J. Welsh
USA	4,847,604	July 11, 1989	August 27, 1987	Michael D. Doyle
USA	4,847,700	July 11, 1989	July 16, 1987	Michael J. Freeman
USA	4,873,623	October 10, 1989	May 15, 1987	Leslie A. Lane Lynn V. Lybeck David S. Perloff Shoji Kumagi
USA	4,884,223	November 28, 1989	March 22, 1988	Lloyd D. Ingle Henry V. Allen James W. Knutti
USA	4,890,320	December 26, 1989	June 9, 1988	H. Vincent Moslow Steven R. Dickey
USA	4,899,136	February 6, 1990	April 28, 1986	Marian H. Beard Perry A. Caro Jennifer B. Hsiao Kevin J. Mackey James G. Sandman, Jr. Gary R. Steinbach Donald R. Woods
USA	4,914,517	April 3, 1990	April 6, 1989	David J. Duffield
USA	4,914,732	April 3, 1990	October 16, 1985	Walter G. Henderson John Q. Archer, II Gerald R. Daum George A. Ellson John E. Gray Wayne F. Larson Rockne M. Olds Jerry P. Scansen John W. Sherman Edgar J. Unrein
USA	4,931,783	June 5, 1990	July 26, 1988	William D. Atkinson
USA	4,935,865	June 19, 1990	June 2, 1988	Mark S. Rowe Charles E. Harper Charles R. Underwood
USA	4,937,821	June 26, 1990	January 21, 1986	David A. Boulton
USA	4,939,507	July 3, 1990	April 28, 1986	Marian H. Beard Perry A. Caro

Country	Patent	Issue Date	Priority Date	Patentee(s)
				Jennifer B. Hsiao Kevin J. Mackey James G. Sandman, Jr. Gary R. Steinbach Donald R. Woods
USA	4,959,720	September 25, 1990	April 6, 1989	David J. Duffield Billy W. Beyers, Jr.
USA	4,963,994	October 16, 1990	December 14, 1981	Michael R. Levine
USA	4,977,455	Dec. 11, 1990	July 15, 1988	Patrick Young
USA	4,987,486	January 21, 1991	December 23, 1988	Lee R. Johnson Elizabeth A. Smith Harold L. Myers
USA	4,995,078	February 19, 1991	June 9, 1988	H. Vincent Munslow Steven R. Dickey
USA	5,008,853	April 16, 1991	December 2, 1987	Sara A. Bly A. Brady Farrand Jeffery D. Hodges Michael D. Kupfer Brian T. Lewis William J. Maybury Michael L. Tallan Stephen B. Tom
USA	5,014,125	May 7, 1991	May 5, 1989	Terrence H. Pocock Rick McNorgan Peter Coumons Allan Lodberg
USA	5,047,867	September 10, 1991	June 8, 1989	Hugo J. Strubbe Donald R. Gentner
USA	5,062,060	October 29, 1991	January 5, 1987	Frank C. Kolnick
USA	5,072,412	December 10, 1991	March 25, 1987	D. Austin Henderson, Jr. Stuart K. Card John T. Maxwell, III
USA	5,081,534	January 14, 1992	August 10, 1988	Erich Geiger Rolf Schiering
USA	5,148,154	September 15, 1992	December 4, 1990	Michael T. MacKay Robert J. Berger Robert Duffy

Country	ountry Patent Issue Date Priority Date		Patentee(s)	
				Ted E. Langford
USA	5,151,782	September 29, 1992	May 17, 1989	Andrew G. Ferraro
USA	5,151,789	September 29, 1992	October 30, 1989	Patrick Young
USA	5,155,806	October 13, 1992	March 15, 1989	Anthony Hoeber Alan Mundler Norman Cox Timothy Shea Rick Levine
USA	5,155,768	October 20, 1992	March 15, 1989	Anthony Hoeber Alan Mundler Norman Cox Timothy Shea Rick Levine
USA	5,177,604	January 5, 1993	May 14, 1986	Louis Martinez
USA	5,195,092	March 16, 1993	August 4, 1987	Stephen D. Wilson Karl W. McCalley
USA	5,206,722	April 27, 1993	December 28, 1990	Shue-Yu Kwan
USA	5,210,611	May 11, 1993	August 12, 1991	Keen Y. Yee Gary W. Kibble
USA	5,220,420	June 15, 1993	September 27, 1990	W. Leo Hoarty Gary M. Lauder
USA	5,223,924	June 29, 1993	May 27, 1992	Hugo J. Strubbe
USA	5,236,199	August 17, 1993	June 13, 1991	John W. Thompson, Jr.
USA	5,239,540	August 24, 1993	November 27, 1990	Luis A. Rovira William E. Wall, Jr.
USA	5,247,347	September 21, 1993	September 27, 1991	Larry A. Litteral Jeffrey B. Gold Donald C. Klika, Jr. Daniel B. Konkle Carl D. Coddington James M. McHenry Arthur A. Richard, III
USA	5,253,066	October 12,	June 1, 1990	Peter S. Vogel

Country	Country Patent Issue Date Priority Date		Patentee(s)	
		1993		
USA	5,253,067	October 12, 1993	December 16, 1991	John W. Chaney James E. Halley
USA	5,283,819	February 1, 1994	April 25, 1991	James A. Glick Ronald B. Graczyk Albert F. Nurick Brittain D. Fraley
USA	5,323,240	June 21, 1994	February 7, 1992	Toshio Amano Mitsumasa Saitoh
USA	5,327,176	July 5, 1994	March 1, 1993	Joseph W. Forler John F. Teskey Michael D. Landis
USA	5,353,121	October 4, 1994	October 30, 1989	Patrick Young John H. Roop Michael W. Faber
USA	5,357,276	October 18, 1994	December 1, 1992	Robert O. Banker Jeffrey B. Huppertz Michael T. Hayashi David B. Lett Voytek E. Godlewski Michael W. Raley
USA	5,367,316	November 22, 1994	March 28, 1992	Masao Ikezaki
USA	5,404,393	April 4, 1995	October 3, 1991	Roger Remillard
USA	5,410,326	April 25, 1995	December 4, 1992	Steven W. Goldstein
USA	5,434,626	July 18, 1995	September 10, 1991	Toshihide Hayashi Koki Tsumori
USA	5,438,372	August 1, 1995	September 10, 1992	Koki Tsumori Kiyoshi Ogawa
USA	5,479,266	December 26, 1995	September 10, 1990	Patrick Young John H. Roop Allan R. Ebright Michael W. Faber David Anderson
USA	5,914,706	June 22, 1999	March 22, 1989	Mitsuru Kono
USA	5,990,927	November 23, 1999	December 9, 1992	John S. Hendricks Alfred E. Bonner Richard E. Wunderlich

Country	CountryPatentIssue DatePriority Date		Patentee(s)	
				Eric C. Berkobin
USA	6,181,335	January 30, 2001	December 9, 1992	John S. Hendricks Alfred E. Bonner Eric C. Berkobin
USA	App. No. 2004/0230992	November 18, 2004	May 27, 1993	Henry C. Yuen Roy J. Mankowitz Daniel S. Kwoh Elsie Y. Leung
WO	86/01962	March 27, 1986	September 21, 1984	Keith Lucas
WO	89/12370	December 14, 1989	June 9, 1988	Vincent H. Monslow Steven R. Dickey
WO	90/01243	February 8, 1990	July 22, 1988	Thomas A. Bush
WO	91/18476	November 28, 1991	May 21, 1990	Gerald B. Cohen
WO	93/11638	June 10, 1993	November 29, 1991	Robert O. Banker Kinney C. Bacon Julius B. Bagley
WO	93/11639	June 10, 1993	November 29, 1991	Robert O. Banker Kinney C. Bacon Julius B. Bagley
WO	93/11640	June 10, 1993	November 29, 1991	Robert O. Banker Kinney C. Bacon Julius B. Bagley
USA	7,836,481	November 16, 2010	December 9, 1992	John S. Hendricks
СА	2,553,384C	November 3, 1992	September 10, 1990	Patrick Young John H. Roop Alan R. Ebright Michael W. Faber David Anderson
USA	5,479,268	December 26, 1995	September 10, 1990	Patrick Young John H. Roop Alan R. Ebright Michael W. Faber David Anderson
USA	5,734,853	March 11, 1998	December 9, 1992	John S. Hendricks Alfred E. Bonner

Country	Patent	Issue Date	Priority Date	Patentee(s)
				Eric C. Berkobin
USA	App No. 2010/0115556	May 6, 2010	August 31, 2009	Henry C. Yuen Roy J. Mankovitz Daniel S. Kwoh Elise Y. Leung
USA	App. No. 08/160,193	December 2, 1993	December 9, 1992	John S. Hendricks Alfred E. Bonner Eric C. Berkobin
USA	App. No. 08/160,281	December 2, 1993	December 9, 1992	John S. Hendricks Alfred E. Bonner Richard E. Wunderlich
USA	App. No. 08/160,282	December 2, 1993	December 9, 1992	John S. Hendricks Alfred E. Bonner
USA	App. No. 08/160,280	December 2, 1993	December 9, 1992	John S. Hendricks Alfred E. Bonner
USA	App. No. 08/160,283	December 2, 1993	December 9, 1992	John S. Hendricks Alfred E. Bonner John P. Lappington Richard E. Wunderlich
USA	App.No. 07/991,074	December 9, 1992	December 9, 1992	John S. Hendricks
USA	5,798,785	August 25, 1998	December 9, 1992	John S. Hendricks Alfred E. Bonner Richard E. Wunderlich
USA	5,659,350	August 9, 1997	December 9, 1992	John S. Hendricks Alfred E. Bonner
USA	5,600,364	February 4, 1997	December 9, 1992	John S. Hendricks Alfred E. Bonner
USA	5,682,195	October 28, 1997	December 9, 1992	John S. Hendricks Alfred E. Bonner John P. Lappington Richard E. Wunderlich

# 2. Publications<sup>5</sup>

Title	Date	Author	Page(s) <sup>6</sup>
Experiences of Handling Multimedia in	March 1992	Nigel Davies	All
Distributed Open Systems		Geoff Coulson	
		Neil Williams	
		Gordon S. Blair	
Visualizing cleared-off desktops:	May 6, 1991	Michael Alexander	All
Scientists make on-screen desktop space			
larger with 3-D rooms and cone			
structures			
ClearFace: Translucent Multiuser	September	Hiroshi Ishii	All
Interface for TeamWorkStation	1991	Kazuho Arita	
Toward an Open Shared Workspace:	December	Hiroshi Ishii	All
Computer and Video Fushion Approach	1991	Naomi Miyake	
of TeamWorkStation			
Learning Considerations in User	July 1984	Patrick P. Chan	All
Interface Design: The Room Model	-		
IBM Technical Disclosure Bulletin:	March 1988	n/a	All
Creation/Modification of the Audio			
Signal Processor Setup For a PC Audio			
Editor			
Browsing Within Time-Driven	March 1988	Stavros	All
Multimedia Documents		Christodoulakis	
		Stephen Graham	
Impact: An Interactive Natural-Motion-	1991	Hirotada Ueda	All
Picture Dedicated Multimedia Authoring		Takafumi	
System		Miyatake	
		Satoshi Yoshizawa	
IBM Technical Disclosure Bulletin:	December	n/a	All
Interactive Computer Conference Server	1991		
Tandy's Video Information System	May 1993	Tom Carlton	All
(VIS): Consumer electronics and desktop			
computing collide			

The prior art references, individually or combined, listed above demonstrate that the asserted claims of the '509 patent are invalid due to anticipation or obviousness.

<sup>&</sup>lt;sup>5</sup> Motorola incorporates by reference all prior art references identified in the publications listed herein and/or their file histories.

<sup>&</sup>lt;sup>6</sup> Motorola reserves the right to rely on any and all pages of any disclosed publication. Representative page numbers are identified herein for convenience only.

Exemplary claim charts for some of these prior art references are attached as Exhibit B. These claim charts are not an exhaustive list of how the prior art references listed above invalidate the '509 patent. Motorola reserves the right to add prior art references to the above list and to Exhibit B, supplement or modify Exhibit B, and to prepare similar charts for other references.

#### B. Invalidity Under 35 U.S.C. § 102 and/or § 103

Apple asserts claims 7-8, 10-11, 14-20, 22-27, 43-52, 54-58, and 60-63 of the '509 Patent against Motorola in this lawsuit.<sup>7</sup> All of those claims are invalid because the '509 Patent fails to meet one or more of the requirements for patentability under 35 U.S.C. §§ 102 and/or 103. The individual bases for invalidity are provided below and in Exhibit B, and Motorola reserves the right to modify these bases. Each of the foregoing listed prior art documents, the underlying work, and/or the underlying apparatus or method qualifies as prior art under one or more sections of 35 U.S.C. § 102 and/or 35 U.S.C. § 103.

Although Motorola has identified at least one citation per limitation for each reference, each and every disclosure of the same limitation in the same reference is not necessarily identified. Rather, in an effort to focus the issues, Motorola has cited representative portions of identified references, even where a reference may contain additional support for a particular claim element. In addition, persons of ordinary skill in the art generally read a prior art reference as a whole and in the context of other publications and literature. Thus, to understand and interpret any specific statement or disclosure within a prior art reference, such persons would rely on other information within the reference, along with other publications and their general

<sup>&</sup>lt;sup>7</sup> Apple has not provided infringement charts for claims 45 and 48. As a result, Motorola has not charted those claims in the accompanying Exhibit B. Motorola reserves the right to provide invalidity charts for claims 45 and 48.

scientific knowledge. Moreover, when a reference explicitly incorporates the teachings and disclosures of other prior art in its specification, those teachings and disclosures are deemed to be part of the original reference itself. Motorola may rely upon uncited portions of the prior art references and on other publications and expert testimony to provide context, and as aids to understanding and interpreting the portions that are cited. Motorola may also rely on uncited portions of the prior art references, other disclosed publications, and the testimony of experts to establish that a person of ordinary skill in the art would have been motivated to modify or combine certain of the cited references so as to render the claims obvious.

Some or all of the asserted claims of the '560 Patent are invalid as anticipated under 35 U.S.C. § 102 in view of the prior art references identified above and in the claim charts included in Exhibit B, which identify specific examples of where each limitation of the asserted claims is found in the prior art references. As explained above, the cited portions of prior art references identified in the attached claim charts are exemplary only and representative of the content and teaching of the prior art references, and should be understood in the context of the reference as a whole and as they would be understood by a person of ordinary skill in the art.

To the extent any limitation is deemed not to be exactly met by an item of prior art listed above, then any purported differences are such that the claimed subject matter as a whole would have been obvious to one skilled in the art at the time of the alleged invention, in view of the state of the art and knowledge of those skilled in the art. The item of prior art would, therefore, render the relevant claims invalid for obviousness under 35 U.S.C. § 103(a).

In addition, the references identified above render one or more asserted claims of the '509 Patent obvious when the references are read in combination with each other, and/or when read in view of the state of the art and knowledge of those skilled in the art. Each and every reference

identified is also relevant to the state of the art at the time of the alleged invention. Any of the references disclosed above may be combined to render obvious (and therefore invalid) each of Apple's asserted claims. Motorola may rely upon a subset of the above identified references or all of the references identified above, including all references in Exhibit B, for purposes of obviousness depending on the Court's claim construction and further investigation and discovery.

Motivations to combine the above items of prior art are present in the references themselves, the common knowledge of one of ordinary skill in the art, the prior art as a whole, and/or the nature of the problems allegedly addressed by the '509 Patent. Combining the references disclosed above and in Exhibit B would have been obvious, as the references identify and address the same technical issues and suggest very similar solutions to those issues. Motorola reserves the right to amend or supplement these preliminary invalidity contentions to identify additional reasons that combining the references would be obvious to one of ordinary skill in the art.

Motorola also reserves the right to amend or supplement these contentions regarding anticipation or obviousness of the asserted claims, in view of further information from Apple, information discovered during discovery, or a claim construction ruling by the Court. Apple has not identified what elements or combinations it alleges were not known to one of ordinary skill in the art at the time. Therefore, for any claim limitation that Apple alleges is not disclosed in a particular prior art reference, Motorola reserves the right to assert that any such limitation is either inherent in the disclosed reference or obvious to one of ordinary skill in the art at the time in light of the same, or that the limitation is disclosed in another of the references disclosed above and in combination would have rendered the asserted claim obvious.

#### C. Other Grounds for Invalidity

Motorola identifies the following grounds for invalidity of the asserted claims of the '509 Patent based on 35 U.S.C. § 112. Motorola reserves the right to supplement these disclosures based on further investigation and discovery.

Motorola asserts that each asserted claim of the '509 Patent is invalid in that the '509 specification fails to particularly point out and distinctly claim the alleged invention of the '509 Patent. Motorola further asserts that each asserted claim of the '509 Patent is invalid as not containing a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the alleged invention.

Based on Motorola's present understanding of Apple's infringement contentions, Motorola asserts that claims 7-8, 10-11, 14-20, 22-27, 43-52, 54-58, and 60-63 of the '509 Patent are invalid for reciting at least the following claim terms/phrases:

- "program listing icon"
- "reminder icon"
- "continuing to depress"
- "reminder mark"
- "reminder indication"
- "control interface unit"
- "controller"
- "control means"
- "control interface unit"

- "in communication with said transceiver"
- "coupled to"
- "coupled together"
- "bus controller"
- "data bus"
- "interface generation means"
- "interface generator"
- "listing means"
- "list generator"
- "marking means"
- "marking"
- "mark button"
- "multiple levels of information"
- "listing channel"

These claim terms/phrases as apparently construed by Apple violate the written description, enablement, and/or definiteness requirements of 35 U.S.C. § 112.

Based on Motorola's present understanding of Apple's infringement contentions, at least one or more of these claim terms/phrases are indefinite because they are inconsistent with and broader than the alleged invention disclosed in the specification and given Apple's apparent constructions of the claims, any person of ordinary skill in the art at the time of the invention would not understand what is claimed, even when the claims are read in light of the specification. Moreover, based on Motorola's present understanding of Apple's infringement contentions, each of the asserted claims in which these claim terms/phrases appear to lack written description because the specification of the '509 Patent demonstrates that the patentee neither conceived of nor demonstrated possession of all that Apple now contends the claims cover. In addition, based on Motorola's present understanding of Apple's infringement contentions, each of the asserted claims in which these claim terms/phrases appear are invalid because the specification fails to provide sufficient disclosure to enable any person of ordinary skill in the art to which it pertains, or with which it is most nearly connected, to implement the invention without undue experimentation. Therefore, the claims fail to satisfy the requirements of § 112.

The asserted claims of the '509 patent are also invalid under 35 U.S.C. § 101 because they only claim abstract ideas. Many limitations in the asserted claims are common abstractions in computer systems and programming languages.

### D. Unenforceability

Motorola asserts that the '509 patent is unenforceable. This action is still in the early stages of discovery. Because unenforceability contentions often require investigation and analysis available only through fact discovery, Motorola reserves the right to amend or supplement its unenforceability contentions at a later time. For example, Motorola may amend or supplement its unenforceability contentions after receiving information from Apple (or third parties) such as documents, discovery responses, and deposition testimony.

## III. The '456 Patent

## A. Identification of Prior Art

At this time, Motorola contends that at least the following prior art references anticipate or render obvious, either alone or in combination, the asserted claims of the '456 Patent:

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	4,703,423	October 27, 1987	July 10, 1984	Charles W. Bado Randy Detrick
USA	4,706,121	November 10, 1987	July 12, 1985	Patrick Young
USA	4,751,578	June 14, 1988	May 28, 1985	Eli Reiter Michael H. Zemering Frank Shannon
USA	4,807,052	February 21, 1989	October 5, 1987	Toshio Amano
USA	4,845,564	July 4, 1989	April 16, 1987	Kunio Hakamada Shizuo Hanamura Osamu Oda Toshio Amano
USA	5,057,915	October 15, 1991	March 10, 1986	Henry Von Kohorn
USA	5,093,726	March 3, 1992	June 20, 1989	Yu J. Chun
USA	5,161,019	November 3, 1992	June 29, 1990	Peter M. Emanuel
USA	5,194,954	March 16, 1993	June 29, 1990	David J. Duffield
USA	5,218,672	June 8, 1993	January 19, 1990	Donald E. Morgan Ted Langford Andrew Leary Dave Wheeler Jon Graham Doug Kuper

## 1. Patent References<sup>8</sup>

<sup>&</sup>lt;sup>8</sup> Motorola incorporates by reference all prior art references cited in the patents listed herein and/or their file histories.

Country	Patent	Issue Date	Priority Date	Patentee(s)	
USA	5,251,034	October 5, 1993	July 9, 1991	Un-huei Na	
USA	5,347,274	September 13, 1994	May 17, 1990	John J. Hassett	
EP	0,239,884	September 29, 1993	April 4, 1986	Charles Thomas Ruthefoord Nancy S. Frank	
EP	0,337,336	December 14, 1994	April 15, 1988	Felix Aschwanden	
EP	0,393,555	September 20, 1995	April 21, 1989	Bruno Emanuel Hennig	
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EP	0,396,062	October 23, 1996	May 5, 1989	Terrence H. Pocock Rick McNorgan Peter Coumans Allan Lodberg	
EP	0,420,123	July 19, 1995	September 27, 1989	Takeshi Fujita Tatsuaki Domura	
EP	0,512,377	September 3, 1997	May 6, 1991	Mark Francis Rumreich	
JP	3,186,085	August 14, 1991	December 15, 1989	Yasushi Suzuki Nobuaki Takahachi Koji Kakimoto Masaaki Saito Toru Iwano	
JP	\$63-253131	February 19, 1990	October 7, 1988	Kazuo Hashimoto	
JP	H4-350995	June 24, 1994	December 4, 1992	Shinichi Kuromoto Kazuyoshi Sugai	
USA	Re. 32,632	March 29, 1988	July 19, 1982 William D. Atkinson		
USA	Re. 34,340	August 10, 1998	October 26, 1987	Michael J. Freeman	
USA	4,290,142	September 15, 1981	February 22, 1979	Rolf Schnee Franz Kraus Friedrich Kiel Helmut Kliem Wolfgang Krick	

Country	try Patent Issue Date Priority Date		Priority Date	Patentee(s)
				Herbert Landgraf
USA	4,381,522	April 26, 1983	December 1, 1980	Trevor Lambert
USA	4,533,910	August 6, 1985	November 2, 1982	Josef Sukonick Bjorn M. Fjallstam
USA	4,536,791	August 20, 1985	March 31, 1980	John G. Campbell Carl F. Schoeneberger Allan B. Bundens Richard M. Fogle John R. Lemburg
USA	4,555,775	November 26, 1985	October 7, 1982	Robert C. Pike
USA	4,573,072	February 25, 1986	March 21, 1984	Michael J. Freeman
USA	4,622,545	November 11, 1986	September 30, 1982	William D. Atkinson
USA	4,641,205	February 3, 1987	March 5, 1984	Billy W. Beyers, Jr.
USA	4,748,618	May 31, 1988	May 21, 1986	Earl F. Brown Robert V. Kline
USA	4,750,036	June 7, 1988	May 14, 1986	Louis Martinez
USA	4,772,882	September 20, 1988	July 18, 1986	Robert J. Mical
USA	4,785,408	November 15, 1988	March 11, 1985	James T. Britton Lorraine Figueroa John F. Patterson Robert I. Rosenthal Richard R. Rosinski
USA	4,812,834	March 14, 1989	August 1, 1985	Charles H. Wells
USA	4,829,558	May 9, 1989	January 19, 1988	Russell J. Welsh
USA	4,847,604	July 11, 1989	August 27, 1987	Michael D. Doyle
USA	4,847,700	July 11, 1989	July 16, 1987 Michael J. Freeman	
USA	4,873,623	October 10, 1989	May 15, 1987	Leslie A. Lane Lynn V. Lybeck

Country	Patent	Issue Date	Priority Date	Patentee(s)
				David S. Perloff Shoji Kumagi
USA	4,884,223	November 28, 1989	March 22, 1988	Lloyd D. Ingle Henry V. Allen James W. Knutti
USA	4,890,320	December 26, 1989	June 9, 1988	H. Vincent Moslow Steven R. Dickey
USA	4,899,136	February 6, 1990	April 28, 1986	Marian H. Beard Perry A. Caro Jennifer B. Hsiao Kevin J. Mackey James G. Sandman, Jr. Gary R. Steinbach Donald R. Woods
USA	4,914,517	April 3, 1990	April 6, 1989	David J. Duffield
USA	4,914,732	April 3, 1990	October 16, 1985	Walter G. Henderson John Q. Archer, II Gerald R. Daum George A. Ellson John E. Gray Wayne F. Larson Rockne M. Olds Jerry P. Scansen John W. Sherman Edgar J. Unrein
USA	4,931,783	June 5, 1990	July 26, 1988	William D. Atkinson
USA	4,935,865	June 19, 1990	June 2, 1988	Mark S. Rowe Charles E. Harper Charles R. Underwood
USA	4,937,821	June 26, 1990	January 21, 1986	David A. Boulton
USA	4,939,507	July 3, 1990	April 28, 1986	Marian H. Beard Perry A. Caro Jennifer B. Hsiao Kevin J. Mackey James G. Sandman, Jr. Gary R. Steinbach Donald R. Woods
USA	4,959,720	September 25, 1990	April 6, 1989	David J. Duffield Billy W. Beyers, Jr.

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	4,963,994	October 16, 1990	December 14, 1981	Michael R. Levine
USA	4,977,455	Dec. 11, 1990	July 15, 1988	Patrick Young
USA	4,987,486	January 21, 1991	December 23, 1988	Lee R. Johnson Elizabeth A. Smith Harold L. Myers
USA	4,995,078	February 19, 1991	June 9, 1988	H. Vincent Munslow Steven R. Dickey
USA	5,008,853	April 16, 1991	December 2, 1987Sara A. Bly A. Brady Farrand Jeffery D. Hodges Michael D. Kupfer Brian T. Lewis William J. Maybury Michael L. Tallan Stephen B. Tom	
USA	5,014,125	May 7, 1991	May 5, 1989	Terrence H. Pocock Rick McNorgan Peter Coumons Allan Lodberg
USA	5,047,867	September 10, 1991	June 8, 1989	Hugo J. Strubbe Donald R. Gentner
USA	5,062,060	October 29, 1991	January 5, 1987	Frank C. Kolnick
USA	5,072,412	December 10, 1991	March 25, 1987	D. Austin Henderson, Jr. Stuart K. Card John T. Maxwell, III
USA	5,081,534	January 14, 1992	August 10, 1988	Erich Geiger Rolf Schiering
USA	5,148,154	September 15, 1992	December 4, 1990	Michael T. MacKay Robert J. Berger Robert Duffy Ted E. Langford
USA	5,151,782	September 29, 1992	May 17, 1989	Andrew G. Ferraro
USA	5,151,789	September 29, 1992	October 30, 1989	Patrick Young
USA	5,155,806	October 13, 1992	March 15, 1989	Anthony Hoeber Alan Mundler

Country	Patent	Issue Date	Priority Date	Patentee(s)
				Norman Cox Timothy Shea Rick Levine
USA	5,155,768	October 20, 1992	March 15, 1989	Anthony Hoeber Alan Mundler Norman Cox Timothy Shea Rick Levine
USA	5,177,604	January 5, 1993	May 14, 1986	Louis Martinez
USA	5,195,092	March 16, 1993	August 4, 1987	Stephen D. Wilson Karl W. McCalley
USA	5,206,722	April 27, 1993	December 28, 1990	Shue-Yu Kwan
USA	5,210,611	May 11, 1993	August 12, 1991	Keen Y. Yee Gary W. Kibble
USA	5,220,420	June 15, 1993	September 27, 1990	W. Leo Hoarty Gary M. Lauder
USA	5,223,924	June 29, 1993	May 27, 1992	Hugo J. Strubbe
USA	5,236,199	August 17, 1993	June 13, 1991	John W. Thompson, Jr.
USA	5,239,540	August 24, 1993	November 27, 1990	Luis A. Rovira William E. Wall, Jr.
USA	5,247,347	September 21, 1993	September 27, 1991	Larry A. Litteral Jeffrey B. Gold Donald C. Klika, Jr. Daniel B. Konkle Carl D. Coddington James M. McHenry Arthur A. Richard, III
USA	5,253,066	October 12, 1993	June 1, 1990	Peter S. Vogel
USA	5,253,067	October 12, 1993	December 16, 1991	John W. Chaney James E. Halley
USA	5,283,819	February 1, 1994	April 25, 1991	James A. Glick Ronald B. Graczyk Albert F. Nurick Brittain D. Fraley

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	5,323,240	June 21, 1994	February 7, 1992	Toshio Amano Mitsumasa Saitoh
USA	5,327,176	July 5, 1994	March 1, 1993	Joseph W. Forler John F. Teskey Michael D. Landis
USA	5,353,121	October 4, 1994	October 30, 1989	Patrick Young John H. Roop Michael W. Faber
USA	5,357,276	October 18, 1994	December 1, 1992	Robert O. Banker Jeffrey B. Huppertz Michael T. Hayashi David B. Lett Voytek E. Godlewski Michael W. Raley
USA	5,367,316	November 22, 1994	March 28, 1992	Masao Ikezaki
USA	5,404,393	April 4, 1995	October 3, 1991	Roger Remillard
USA	5,410,326	April 25, 1995	December 4, 1992	Steven W. Goldstein
USA	5,434,626	July 18, 1995	September 10, 1991	Toshihide Hayashi Koki Tsumori
USA	5,438,372	August 1, 1995	September 10, 1992	Koki Tsumori Kiyoshi Ogawa
USA	5,479,266	December 26, 1995	September 10, 1990	Patrick Young John H. Roop Allan R. Ebright Michael W. Faber David Anderson
USA	5,914,706	June 22, 1999	March 22, 1989	Mitsuru Kono
USA	5,990,927	November 23, 1999	December 9, 1992	John S. Hendricks Alfred E. Bonner Richard E. Wunderlich Eric C. Berkobin
USA	6,181,335	January 30, 2001	December 9, 1992	John S. Hendricks Alfred E. Bonner Eric C. Berkobin
USA	App. No. 2004/0230992	November 18, 2004	May 27, 1993	Henry C. Yuen Roy J. Mankowitz Daniel S. Kwoh

Country	Patent	Issue Date	<b>Priority Date</b>	Patentee(s)
				Elsie Y. Leung
WO	86/01962	March 27, 1986	September 21, 1984	Keith Lucas
WO	89/12370	December 14, 1989	June 9, 1988	Vincent H. Monslow Steven R. Dickey
WO	90/01243	February 8, 1990	July 22, 1988	Thomas A. Bush
WO	91/18476	November 28, 1991	May 21, 1990	Gerald B. Cohen
WO	93/11638	June 10, 1993	November 29, 1991	Robert O. Banker Kinney C. Bacon Julius B. Bagley
WO	93/11639	June 10, 1993	November 29, 1991	Robert O. Banker Kinney C. Bacon Julius B. Bagley
WO	93/11640	June 10, 1993	November 29, 1991	Robert O. Banker Kinney C. Bacon Julius B. Bagley
USA	7,836,481	November 16, 2010	December 9, 1992	John S. Hendricks
СА	2,553,384C	November 3, 1992	September 10, 1990	Patrick Young John H. Roop Alan R. Ebright Michael W. Faber David Anderson
USA	5,479,268	December 26, 1995	September 10, 1990	Patrick Young John H. Roop Alan R. Ebright Michael W. Faber David Anderson
USA	5,734,853	March 11, 1998	December 9, 1992	John S. Hendricks Alfred E. Bonner Eric C. Berkobin
USA	App. No. 08/160,193	December 2, 1993	December 9, 1992	John S. Hendricks Alfred E. Bonner Eric C. Berkobin
USA	App. No. 08/160,281	December 2, 1993	December 9, 1992	John S. Hendricks Alfred E. Bonner Richard E. Wunderlich

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	App. No. 08/160,282	December 2, 1993	December 9, 1992	John S. Hendricks Alfred E. Bonner
USA	App. No. 08/160,280	December 2, 1993	December 9, 1992	John S. Hendricks Alfred E. Bonner
USA	App. No. 08/160,283	December 2, 1993	December 9, 1992	John S. Hendricks Alfred E. Bonner John P. Lappington Richard E. Wunderlich
USA	App.No. 07/991,074	December 9, 1992	December 9, 1992	John S. Hendricks
USA	5,798,785	August 25, 1998	December 9, 1992	John S. Hendricks Alfred E. Bonner Richard E. Wunderlich
USA	5,659,350	August 9, 1997	December 9, 1992	John S. Hendricks Alfred E. Bonner
USA	5,600,364	February 4, 1997	December 9, 1992	John S. Hendricks Alfred E. Bonner
USA	5,682,195	October 28, 1997	December 9, 1992	John S. Hendricks Alfred E. Bonner John P. Lappington Richard E. Wunderlich

# 2. Publications<sup>9</sup>

Title	Date	Author	Page(s) <sup>10</sup>
Experiences of Handling Multimedia in	March 1992	Nigel Davies	All
Distributed Open Systems		Geoff Coulson	
		Neil Williams	
		Gordon S. Blair	
Visualizing cleared-off desktops:	May 6, 1991	Michael Alexander	All
Scientists make on-screen desktop space			
larger with 3-D rooms and cone			
structures			
ClearFace: Translucent Multiuser	September	Hiroshi Ishii	All

<sup>9</sup> Motorola incorporates by reference all prior art references identified in the publications listed herein and/or their file histories.

<sup>10</sup> Motorola reserves the right to rely on any and all pages of any disclosed publication. Representative page numbers are identified herein for convenience only.

Title	Date	Author	Page(s) <sup>10</sup>
Interface for TeamWorkStation	1991	Kazuho Arita	
Toward an Open Shared Workspace:	December	Hiroshi Ishii	All
Computer and Video Fushion Approach	1991	Naomi Miyake	
of TeamWorkStation			
Learning Considerations in User	July 1984	Patrick P. Chan	All
Interface Design: The Room Model			
IBM Technical Disclosure Bulletin:	March 1988	n/a	All
Creation/Modification of the Audio			
Signal Processor Setup For a PC Audio			
Editor			
Browsing Within Time-Driven	March 1988	Stavros	All
Multimedia Documents		Christodoulakis	
		Stephen Graham	
Impact: An Interactive Natural-Motion-	1991	Hirotada Ueda	All
Picture Dedicated Multimedia Authoring		Takafumi	
System		Miyatake	
		Satoshi Yoshizawa	
IBM Technical Disclosure Bulletin:	December	n/a	All
Interactive Computer Conference Server	1991		
Tandy's Video Information System	May 1993	Tom Carlton	All
(VIS): Consumer electronics and desktop			
computing collide			

The prior art references, individually or combined, listed above demonstrate that the asserted claims of the '456 patent are invalid due to anticipation or obviousness.

Exemplary claim charts for some of these prior art references are attached as Exhibit C. These claim charts are not an exhaustive list of how the prior art references listed above invalidate the '456 patent. Motorola reserves the right to add prior art references to the above list and to Exhibit C, supplement or modify Exhibit C, and to prepare similar charts for other references.

## B. Invalidity Under 35 U.S.C. § 102 and/or § 103

Plaintiffs assert claims 1-2 and 4-10 of the '456 Patent against Motorola in this lawsuit. All of those claims are invalid because the '456 Patent fails to meet one or more of the requirements for patentability under 35 U.S.C. §§ 102 and/or 103. The individual bases for invalidity are provided below and in Exhibit C, and Motorola reserves the right to modify these bases. Each of the foregoing listed prior art documents, the underlying work, and/or the underlying apparatus or method qualifies as prior art under one or more sections of 35 U.S.C. § 102 and/or 35 U.S.C. § 103.

Although Motorola has identified at least one citation per limitation for each reference, each and every disclosure of the same limitation in the same reference is not necessarily identified. Rather, in an effort to focus the issues, Motorola has cited representative portions of identified references, even where a reference may contain additional support for a particular claim element. In addition, persons of ordinary skill in the art generally read a prior art reference as a whole and in the context of other publications and literature. Thus, to understand and interpret any specific statement or disclosure within a prior art reference, such persons would rely on other information within the reference, along with other publications and their general scientific knowledge. Moreover, when a reference explicitly incorporates the teachings and disclosures of other prior art in its specification, those teachings and disclosures are deemed to be part of the original reference itself. Motorola may rely upon uncited portions of the prior art references and on other publications and expert testimony to provide context, and as aids to understanding and interpreting the portions that are cited. Motorola may also rely on uncited portions of the prior art references, other disclosed publications, and the testimony of experts to establish that a person of ordinary skill in the art would have been motivated to modify or combine certain of the cited references so as to render the claims obvious.

Some or all of the asserted claims of the '456 Patent are invalid as anticipated under 35 U.S.C. § 102 in view of the prior art references identified above and in the claim charts included in Exhibit B, which identify specific examples of where each limitation of the asserted claims is found in the prior art references. As explained above, the cited portions of prior art references

identified in the attached claim charts are exemplary only and representative of the content and teaching of the prior art references, and should be understood in the context of the reference as a whole and as they would be understood by a person of ordinary skill in the art.

To the extent any limitation is deemed not to be exactly met by an item of prior art listed above, then any purported differences are such that the claimed subject matter as a whole would have been obvious to one skilled in the art at the time of the alleged invention, in view of the state of the art and knowledge of those skilled in the art. The item of prior art would, therefore, render the relevant claims invalid for obviousness under 35 U.S.C. § 103(a).

In addition, the references identified above render one or more asserted claims of the '509 Patent obvious when the references are read in combination with each other, and/or when read in view of the state of the art and knowledge of those skilled in the art. Each and every reference identified is also relevant to the state of the art at the time of the alleged invention. Any of the references disclosed above may be combined to render obvious (and therefore invalid) each of Apple's asserted claims. Motorola may rely upon a subset of the above identified references or all of the references identified above, including all references in Exhibit C, for purposes of obviousness depending on the Court's claim construction and further investigation and discovery.

Motivations to combine the above items of prior art are present in the references themselves, the common knowledge of one of ordinary skill in the art, the prior art as a whole, and/or the nature of the problems allegedly addressed by the '456 Patent. Combining the references disclosed above and in Exhibit C would have been obvious, as the references identify and address the same technical issues and suggest very similar solutions to those issues. Motorola reserves the right to amend or supplement these preliminary invalidity contentions to

identify additional reasons that combining the references would be obvious to one of ordinary skill in the art.

Motorola also reserves the right to amend or supplement these contentions regarding anticipation or obviousness of the asserted claims, in view of further information from Apple, information discovered during discovery, or a claim construction ruling by the Court. Apple has not identified what elements or combinations it alleges were not known to one of ordinary skill in the art at the time. Therefore, for any claim limitation that Apple alleges is not disclosed in a particular prior art reference, Motorola reserves the right to assert that any such limitation is either inherent in the disclosed reference or obvious to one of ordinary skill in the art at the time in light of the same, or that the limitation is disclosed in another of the references disclosed above and in combination would have rendered the asserted claim obvious.

#### C. Other Grounds for Invalidity

Motorola identifies the following grounds for invalidity of the asserted claims of the '456 Patent based on 35 U.S.C. § 112. Motorola reserves the right to supplement these disclosures based on further investigation and discovery.

Motorola asserts that each asserted claim of the '456 Patent is invalid in that the '456 specification fails to particularly point out and distinctly claim the alleged invention of the '456 Patent. Motorola further asserts that each asserted claim of the '456 Patent is invalid as not containing a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the alleged invention.

Based on Motorola's present understanding of Apple's infringement contentions,

Motorola asserts that claims 1-2 and 4-10 of the '456 Patent are invalid for reciting at least the following claim terms/phrases:

- "program listing icon"
- "reminder icon"
- "continuing to depress"
- "reminder mark"
- "reminder indication"
- "control interface unit"
- "controller"
- "control means"
- "control interface unit"
- "in communication with said transceiver"
- "coupled to"
- "coupled together"
- "bus controller"
- "data bus"
- "interface generation means"
- "interface generator"
- "listing means"
- "list generator"
- "marking means"
- "marking"

- "mark button"
- "multiple levels of information"
- "listing channel"

These claim terms/phrases as apparently construed by Apple violate the written description, enablement, and/or definiteness requirements of 35 U.S.C. § 112.

Based on Motorola's present understanding of Apple's infringement contentions, at least one or more of these claim terms/phrases are indefinite because they are inconsistent with and broader than the alleged invention disclosed in the specification and given Apple's apparent constructions of the claims, any person of ordinary skill in the art at the time of the invention would not understand what is claimed, even when the claims are read in light of the specification. Moreover, based on Motorola's present understanding of Apple's infringement contentions, each of the asserted claims in which these claim terms/phrases appear to lack written description because the specification of the '456 Patent demonstrates that the patentee neither conceived of nor demonstrated possession of all that Apple now contends the claims cover. In addition, based on Motorola's present understanding of Apple's infringement contentions, each of the asserted claims in which these claim terms/phrases appear are invalid because the specification fails to provide sufficient disclosure to enable any person of ordinary skill in the art to which it pertains, or with which it is most nearly connected, to implement the invention without undue experimentation. Therefore, the claims fail to satisfy the requirements of § 112.

The asserted claims of the '456 patent are also invalid under 35 U.S.C. § 101 because they only claim abstract ideas. Many limitations in the asserted claims are common abstractions in computer systems and programming languages.

#### **D.** Unenforceability

Motorola asserts that the '456 patent is unenforceable. This action is still in the early stages of discovery. Because unenforceability contentions often require investigation and analysis available only through fact discovery, Motorola reserves the right to amend or supplement its unenforceability contentions at a later time. For example, Motorola may amend or supplement its unenforceability contentions after receiving information from Apple (or third parties) such as documents, discovery responses, and deposition testimony.

## IV. The '646 Patent

#### A. Identification of Prior Art

At this time, Motorola contends that at least the following prior art references anticipate or render obvious, either alone or in combination, the asserted claims of the '646 Patent:

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	6,049,316	April 11, 2000	June 12, 1997	Nolan; Rebecca, Tang; Richard X.
USA	6,247,079	June 12, 2001	October 1, 1997	Papa; Stephen E. J., Smith; Dennis H., Wallach; Walter A.
USA	5,038,301	August 6, 1991	July 31, 1987	Thoma, III, Roy E.
USA	5,072,411	December 10, 1991	January 27, 1989	Yamaki; Kazunori
USA	5,386,567	January 31, 1995	October 14, 1992	Lien; Yeong-Chang, Sone; Hironao, Sekiya; Kazuo, Kanada; Yoshihisa
USA	5,159,683	October 27, 1992	September 8, 1989	Lvovsky; Lazar, Lushtak; Alexander S.
USA	5,459,825	October 17, 1995	March 14, 1994	Anderson; Greg, Hendry; Ian, Othmer; Konstantin

## 1. Patent References<sup>11</sup>

<sup>&</sup>lt;sup>11</sup> Motorola incorporates by reference all prior art references cited in the patents listed herein and/or their file histories.

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	5,506,602	April 9, 1996	June 5, 1995	Yokoyama; Noboru
USA	5,581,788	December 3, 1996	September 28, 1995	Ballare; Daniel E.
USA	5,682,529	October 28, 1997	March 14, 1994	Hendry; Ian, Puckett; Michael
USA	5,768,541	June 16, 1998	June 15, 1995	Pan-Ratzlaff; Ruby
JP	App. Pub. No. H7-271473	October 20, 1995	March 28, 1994	Ninomiya; Ryoji, Sakai; Makoto
USA	4,922,448	May 1, 1990	October 3, 1988	Kunieda; Yoshio, Okamoto; Toshishige, Furukawa; Satoshi
USA	5,014,193	May 7, 1991	October 14, 1988	Garner; Paul M., Boone; Carrie, Cepulis; Darren J.
USA	5,276,458	January 4, 1994	May 13, 1993	Sawdon, David
USA	5,872,998	February 16, 1999	February 6, 1996	Chee; Lawrence
USA	5,926,166	July 20, 1999	August 21, 1995	Khederzadeh; Massoud, Sun; Jiming, Lloyd; Jon G.
USA	6,032,202	February 29, 2000	January 6, 1998	Lea; Rodger J., Ludke; Harold Aaron
USA	6,263,387	July 17, 2001	October 1, 1997	Chrabaszcz; Michael
USA	7,053,864	May 30, 2006	November 25, 1998	Lee; Sang-Hae
USA	5,559,525	September 24, 1996	April 20, 1995	Zenda; Hiroki
USA	5,627,974	May 6, 1997	November 8, 1994	Watts, Jr.; LaVaughn F., Tonsing; Robert E.
USA	5,590,376	December 31, 1996	November 13, 1992	Kou; James L. T.
USA	5,825,359	October 20, 1998	October 5, 1995	Derby; Herbert G., Charlton; Paul
USA	5,923,307	July 13, 1999	January 27, 1997	Hogle, IV; Francis M.
USA	5,276,630	January 4, 1994	July 23, 1990	Baldwin; Joe M., Bishop; Richard A., Hansen; William G., Polley, Phillip L.
USA	5,282,268	January 25, 1994	August 14, 1991	Mieras; Herbert J., Wells; Duncan C.
USA	5,469,223	November 21, 1995	March 4, 1994	Kimura, Scott A.

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	6,104,359	August 15,	January 24,	Endres; Raymond E.,
		2000	1997	Laney; Stuart T., Vachon;
				Andre F.
USA	5,457,473	October 10,	February 2,	Arai; Ikuya, Kitou; Kouji,
		1995	1993	Sano; Yuji
USA	5,608,418	March 4, 1997	May 15, 1995	McNally; Sean M.
USA	5,635,952	June 3, 1997	July 19, 1993	Gable; John
USA	5,943,029	August 24, 1999	January 26, 1999	Nguyen, Chau
USA	5,029,077	July 2, 1991	September 7, 1988	Fatahalian; Farhad H., Halliday; Larry A., Nguyen; Khoa D.
USA	5,265,251	November 23, 1993	March 25, 1993	Agarawal; Harish C., Verburg; Richard L.
USA	5,379,437	January 3, 1995	November 16, 1992	Celi, Jr.; Joseph, Webster; Gordon D.
USA	5,822,547	October 13, 1998	May 31, 1996	Boesch; Shannon C., Haley; Charles L.
USA	5,309,552	May 3, 1994	October 18, 1991	Horton; Robert S., Mitchell; Ralph C., Temnycky; Walter G
USA	5,375,210	December 20, 1994	April 17, 1992	Monnes; Peter J., Wilkinson; James G.
USA	5,535,415	July 9, 1996	July 12, 1993	Kondou; Yoshimasa, Hanaoka; Masaaki, Nakamura; Shinji, Doi; Fumiaki
USA	5,977,934	November 2, 1999	October 7, 1996	Wada; Hiroshi, Nomura; Yoshiaki, Yamakawa; Yasushi
USA	5,694,141	December 2, 1997	June 7, 1995	Chee; Lawrence
USA	5,748,980	May 5, 1998	December 13, 1994	Lipe; Ralph A, Santerre; Pierre-Yves
JP	H6-56491	October 20, 1995	March 28, 1994	Ryouji Ninomiya Makoto Sakai

# **2. Publications** $^{12}$

Title	Date	Author	Page(s) <sup>13</sup>
Radius display can fit different orientations	July 22, 1991	Azinger, Eric	All
Plug and Play BIOS Specification, Version 1.0A	May 5, 1994	Compaq Computer Corporation, Phoenix Technologies, Ltd., and Intel Corporation	All
Research on high-speed, high-density packaging technology of communication devices		Nobuaki Sugiura	Chpt. 6
PCI Hot-Plug Specification	March 5, 1997	Nobuaki Sugiura	All
Linux-GGI Project	November 1996	Andreas Beck and Steffen Seeger	All
Object-Oriented Software Development in Structural Engineering	April 1992	Kevin Michael Elbury	All
Radius licensee introduces low-cost Pivot display	April 5, 1993	CATE CORCORAN	All
Apple Edges Toward Mainstream With Networking, VGA Support	January 14, 1991	THE INFOWORLD STAFF	All
Radius Ships Full-Motion Color TV Display System	June 25, 1990	PAUL WORTHINGTON	All
Universal Serial Bus	April 30, 1996	Jeff Chen	All
VESA Bios	July 2, 1997	VESA	All
VESA Plug and Display (P&D) Standard	June 11, 1997	VESA	All

## 3. Systems

All versions of the following prior art systems commercially sold, publicly known or

used prior to May 8, 1998, including documents and source code describing the same:

• Hewlett Packard OmniBook 800

<sup>&</sup>lt;sup>12</sup> Motorola incorporates by reference all prior art references identified in the publications listed herein and/or their file histories.

<sup>&</sup>lt;sup>13</sup> Motorola reserves the right to rely on any and all pages of any disclosed publication. Representative page numbers are identified herein for convenience only.

- Adaptec APA-1480 SlimSCSI
- miroVIDEO DC10

Motorola also reserves the right to refer to and rely on commonly referenced texts that were available at the time of the alleged invention of the '646 patent, including, for example, but not limited to: Microsoft Windows 95 Resource Kit; Hardware Design Guide for Microsoft Windows 95: A Practical Guide for Developing Plug and Play PCs and Peripherals; Programming Plug and Play; Plug and Play System Architecture; Inside the Windows 95 Registry: A Guide for Programmers, System Administrators, and Users; Writing Windows VxDs and Device Drivers (Second Edition); PCMCIA System Architecture: 16-Bit PC Cards (Second Edition); and The PCMCIA Developer's Guide.

The prior art references, individually or combined, listed above demonstrate that the asserted claims of the '646 patent are invalid due to anticipation or obviousness.

Exemplary claim charts for some of these prior art references are attached as Exhibit D. These claim charts are not an exhaustive list of how the prior art references listed above invalidate the '646 patent. Motorola reserves the right to add prior art references to the list above and to Exhibit D, supplement or modify Exhibit D, and to prepare similar charts for other references.

## B. Invalidity Under 35 U.S.C. § 102 and/or § 103

Apple asserts claims 1, 10, 13, 14, 16, and 32 of the '646 Patent against Motorola in this lawsuit. All of those claims are invalid because the '646 Patent fails to meet one or more of the requirements for patentability under 35 U.S.C. §§ 102 and/or 103. The individual bases for invalidity are provided below and in Exhibit D, and Motorola reserves the right to modify these bases. Each of the foregoing listed prior art documents, the underlying work, and/or the underlying apparatus or method qualifies as prior art under one or more sections of 35 U.S.C. § 102 and/or 35 U.S.C. § 103.

Although Motorola has identified at least one citation per limitation for each reference, each and every disclosure of the same limitation in the same reference is not necessarily identified. Rather, in an effort to focus the issues, Motorola has cited representative portions of identified references, even where a reference may contain additional support for a particular claim element. In addition, persons of ordinary skill in the art generally read a prior art reference as a whole and in the context of other publications and literature. Thus, to understand and interpret any specific statement or disclosure within a prior art reference, such persons would rely on other information within the reference, along with other publications and their general scientific knowledge. Moreover, when a reference explicitly incorporates the teachings and disclosures of other prior art in its specification, those teachings and disclosures are deemed to be part of the original reference itself. Motorola may rely upon uncited portions of the prior art references and on other publications and expert testimony to provide context, and as aids to understanding and interpreting the portions that are cited. Motorola may also rely on uncited portions of the prior art references, other disclosed publications, and the testimony of experts to establish that a person of ordinary skill in the art would have been motivated to modify or combine certain of the cited references so as to render the claims obvious.

Some or all of the asserted claims of the '646 Patent are invalid as anticipated under 35 U.S.C. § 102 in view of the prior art references identified above and in the claim charts included in Exhibit D, which identify specific examples of where each limitation of the asserted claims is found in the prior art references. As explained above, the cited portions of prior art references identified in the attached claim charts are exemplary only and representative of the content and teaching of the prior art references, and should be understood in the context of the reference as a whole and as they would be understood by a person of ordinary skill in the art.

To the extent any limitation is deemed not to be exactly met by an item of prior art listed above, then any purported differences are such that the claimed subject matter as a whole would have been obvious to one skilled in the art at the time of the alleged invention, in view of the state of the art and knowledge of those skilled in the art. The item of prior art would, therefore, render the relevant claims invalid for obviousness under 35 U.S.C. § 103(a).

In addition, the references identified above render one or more asserted claims of the '646 Patent obvious when the references are read in combination with each other, and/or when read in view of the state of the art and knowledge of those skilled in the art. Each and every reference identified is also relevant to the state of the art at the time of the alleged invention. Any of the references disclosed above may be combined to render obvious (and therefore invalid) each of Apple's asserted claims. Motorola may rely upon a subset of the above identified references or all of the references identified above, including all references in Exhibit D, for purposes of obviousness depending on the Court's claim construction and further investigation and discovery.

Motivations to combine the above items of prior art are present in the references themselves, the common knowledge of one of ordinary skill in the art, the prior art as a whole, and/or the nature of the problems allegedly addressed by the '646 Patent. Combining the prior art references listed above and in Exhibit D would have been obvious, as the references identify and address the same technical issues and suggest very similar solutions to those issues. Motorola reserves the right to amend or supplement these preliminary invalidity contentions to identify additional reasons that combining the references would be obvious to one of ordinary skill in the art.

Motorola also reserves the right to amend or supplement these contentions regarding anticipation or obviousness of the asserted claims, in view of further information from Apple,

information discovered during discovery, or a claim construction ruling by the Court. Apple has not identified what elements or combinations it alleges were not known to one of ordinary skill in the art at the time. Therefore, for any claim limitation that Apple alleges is not disclosed in a particular prior art reference, Motorola reserves the right to assert that any such limitation is either inherent in the disclosed reference or obvious to one of ordinary skill in the art at the time in light of the same, or that the limitation is disclosed in another of the references disclosed above and in combination would have rendered the asserted claim obvious.

#### C. Other Grounds for Invalidity

Motorola identifies the following grounds for invalidity of the asserted claims of the '646 Patent based on 35 U.S.C. §§ 101 and 112. Motorola reserves the right to supplement these disclosures based on further investigation and discovery.

Motorola asserts that each asserted claim of the '646 Patent is invalid in that the '646 specification fails to particularly point out and distinctly claim the alleged invention of the '646 Patent. Motorola further asserts that each asserted claim of the '646 Patent is invalid as not containing a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the alleged invention.

Based on Motorola's present understanding of Apple's infringement contentions, Motorola asserts that claims 1, 10, 13, 14, 16, and 32 of the '646 Patent are invalid for reciting at least the following claim terms/phrases:

- "input/output device"
- "display manager"

- "a device manager"
- "reconfiguring at least one computer resource"

These claim terms/phrases as apparently construed by Apple violate the written description, enablement, and/or definiteness requirements of 35 U.S.C. § 112.

Based on Motorola's present understanding of Apple's infringement contentions, at least one or more of these claim terms/phrases are indefinite because they are inconsistent with and broader than the alleged invention disclosed in the specification and given Apple's apparent constructions of the claims, any person of ordinary skill in the art at the time of the invention would not understand what is claimed, even when the claims are read in light of the specification. Moreover, based on Motorola's present understanding of Apple's infringement contentions, each of the asserted claims in which these claim terms/phrases appear to lack written description because the specification of the '646 Patent demonstrates that the patentee neither conceived of nor demonstrated possession of all that Apple now contends the claims cover. In addition, based on Motorola's present understanding of Apple's infringement contentions, each of the asserted claims in which these claim terms/phrases appear are invalid because the specification fails to provide sufficient disclosure to enable any person of ordinary skill in the art to which it pertains, or with which it is most nearly connected, to implement the invention without undue experimentation. Therefore, the claims fail to satisfy the requirements of § 112. The '646 patent asserted claims 16 and 32 are also invalid under 35 U.S.C. § 101 because they claim ineligible subject matter.

## D. Unenforceability

Motorola asserts that the '646 patent is unenforceable. This action is still in the early stages of discovery. Because unenforceability contentions often require investigation and

analysis available only through fact discovery, Motorola reserves the right to amend or supplement its unenforceability contentions at a later time. For example, Motorola may amend or supplement its unenforceability contentions after receiving information from Apple (or third parties) such as documents, discovery responses, and deposition testimony.

## V. The '116 Patent

## A. Identification of Prior Art

At this time, Motorola contends that at least the following prior art references anticipate or render obvious, either alone or in combination, the asserted claims of the '116 Patent:

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	6,049,316	April 11, 2000	June 12, 1997	Nolan; Rebecca, Tang; Richard X.
USA	6,247,079	June 12, 2001	October 1, 1997	Papa; Stephen E. J., Smith; Dennis H., Wallach; Walter A.
USA	5,038,301	August 6, 1991	July 31, 1987	Thoma, III, Roy E.
USA	5,072,411	December 10, 1991	January 27, 1989	Yamaki; Kazunori
USA	5,386,567	January 31, 1995	October 14, 1992	Lien; Yeong-Chang, Sone; Hironao, Sekiya; Kazuo, Kanada; Yoshihisa
USA	5,159,683	October 27, 1992	September 8, 1989	Lvovsky; Lazar, Lushtak; Alexander S.
USA	5,459,825	October 17, 1995	March 14, 1994	Anderson; Greg, Hendry; Ian, Othmer; Konstantin
USA	5,506,602	April 9, 1996	June 5, 1995	Yokoyama; Noboru
USA	5,581,788	December 3, 1996	September 28, 1995	Ballare; Daniel E.
USA	5,682,529	October 28, 1997	March 14, 1994	Hendry; Ian, Puckett; Michael

## 1. Patent References<sup>14</sup>

<sup>&</sup>lt;sup>14</sup> Motorola incorporates by reference all prior art references cited in the patents listed herein and/or their file histories.

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	5,768,541	June 16, 1998	June 15, 1995	Pan-Ratzlaff; Ruby
JP	App. Pub. No. H7-271473	October 20, 1995	March 28, 1994	Ninomiya; Ryoji, Sakai; Makoto
USA	4,922,448	May 1, 1990	October 3, 1988	Kunieda; Yoshio, Okamoto; Toshishige, Furukawa; Satoshi
USA	5,014,193	May 7, 1991	October 14, 1988	Garner; Paul M., Boone; Carrie, Cepulis; Darren J.
USA	5,276,458	January 4, 1994	May 13, 1993	Sawdon, David
USA	5,872,998	February 16, 1999	February 6, 1996	Chee; Lawrence
USA	5,926,166	July 20, 1999	August 21, 1995	Khederzadeh; Massoud, Sun; Jiming, Lloyd; Jon G.
USA	6,032,202	February 29, 2000	January 6, 1998	Lea; Rodger J., Ludke; Harold Aaron
USA	6,263,387	July 17, 2001	October 1, 1997	Chrabaszcz; Michael
USA	7,053,864	May 30, 2006	November 25, 1998	Lee; Sang-Hae
USA	5,559,525	September 24, 1996	April 20, 1995	Zenda; Hiroki
USA	5,627,974	May 6, 1997	November 8, 1994	Watts, Jr.; LaVaughn F., Tonsing; Robert E.
USA	5,590,376	December 31, 1996	November 13, 1992	Kou; James L. T.
USA	5,825,359	October 20, 1998	October 5, 1995	Derby; Herbert G., Charlton; Paul
USA	5,923,307	July 13, 1999	January 27, 1997	Hogle, IV; Francis M.
USA	6,104,359	August 15, 2000	January 24, 1997	Endres; Raymond E., Laney; Stuart T., Vachon; Andre F.
USA	5,276,630	January 4, 1994	July 23, 1990	Baldwin; Joe M., Bishop; Richard A., Hansen; William G., Polley, Phillip L.
USA	5,282,268	January 25, 1994	August 14, 1991	Mieras; Herbert J., Wells; Duncan C.
USA	5,469,223	November 21, 1995	March 4, 1994	Kimura, Scott A.
USA	6,104,359	August 15, 2000	January 24, 1997	Endres; Raymond E., Laney; Stuart T., Vachon; Andre F.

Country	Patent	Issue Date	Priority Date	Patentee(s)
USA	5,457,473	October 10, 1995	February 2, 1993	Arai; Ikuya, Kitou; Kouji, Sano; Yuji
USA	5,608,418	March 4, 1997	May 15, 1995 McNally; Sean M.	
USA	5,635,952	June 3, 1997	July 19, 1993	Gable; John
USA	5,943,029	August 24, 1999	January 26, 1999	Nguyen, Chau
USA	5,029,077	July 2, 1991	September 7, 1988	Fatahalian; Farhad H., Halliday; Larry A., Nguyen; Khoa D.
USA	5,265,251	November 23, 1993	March 25, 1993	Agarawal; Harish C., Verburg; Richard L.
USA	5,379,437	January 3, 1995	November 16, 1992	Celi, Jr.; Joseph, Webster; Gordon D.
USA	5,822,547	October 13, 1998	May 31, 1996	Boesch; Shannon C., Haley; Charles L.
USA	5,309,552	May 3, 1994	October 18, 1991	Horton; Robert S., Mitchell; Ralph C., Temnycky; Walter G
USA	5,375,210	December 20, 1994	April 17, 1992	Monnes; Peter J., Wilkinson; James G.
USA	5,535,415	July 9, 1996	July 12, 1993	Kondou; Yoshimasa, Hanaoka; Masaaki, Nakamura; Shinji, Doi; Fumiaki
USA	5,977,934	November 2, 1999	October 7, 1996	Wada; Hiroshi, Nomura; Yoshiaki, Yamakawa; Yasushi
USA	6,049,316	April 11, 2000	June 12, 1997	Nolan; Rebecca, Tang; Richard X.
USA	6,247,079	June 12, 2001	October 1, 1997	Papa; Stephen E. J., Smith; Dennis H., Wallach; Walter A.
USA	5,038,301	August 6, 1991	July 31, 1987	Thoma, III, Roy E.
USA	5,072,411	December 10, 1991	January 27, 1989	Yamaki; Kazunori
USA	5,386,567	January 31, 1995	October 14, 1992	Lien; Yeong-Chang, Sone; Hironao, Sekiya; Kazuo, Kanada; Yoshihisa
USA	5,159,683	October 27, 1992	September 8, 1989	Lvovsky; Lazar, Lushtak; Alexander S.
USA	5,459,825	October 17,	March 14, 1994	Anderson; Greg, Hendry;

Country	Patent	Issue Date	Priority Date	Patentee(s)
		1995	· · · ·	Ian, Othmer; Konstantin
USA	5,506,602	April 9, 1996	June 5, 1995	Yokoyama; Noboru
USA	5,581,788	December 3, 1996	September 28, 1995	Ballare; Daniel E.
USA	5,682,529	October 28, 1997	March 14, 1994	Hendry; Ian, Puckett; Michael
USA	5,768,541	June 16, 1998	June 15, 1995	Pan-Ratzlaff; Ruby
JP	App. Pub. No. H7-271473	October 20 <sup>th</sup> , 1995	March 28 <sup>th</sup> , 1994	Ninomiya; Ryoji, Sakai; Makoto
USA	4,922,448	May 1, 1990	October 3, 1988	Kunieda; Yoshio, Okamoto; Toshishige, Furukawa; Satoshi
USA	5,014,193	May 7, 1991	October 14, 1988	Garner; Paul M., Boone; Carrie, Cepulis; Darren J.
USA	5,276,458	January 4, 1994	May 13, 1993	Sawdon, David
USA	5,872,998	February 16, 1999	February 6, 1996	Chee; Lawrence
USA	5,926,166	July 20, 1999	August 21, 1995	Khederzadeh; Massoud, Sun; Jiming, Lloyd; Jon G.
USA	6,032,202	February 29, 2000	January 6, 1998	Lea; Rodger J., Ludke; Harold Aaron
USA	6,263,387	July 17, 2001	October 1, 1997	Chrabaszcz; Michael
USA	7,053,864	May 30, 2006	November 25, 1998	Lee; Sang-Hae
USA	5,559,525	September 24, 1996	April 20, 1995	Zenda; Hiroki
USA	5,627,974	May 6, 1997	November 8, 1994	Watts, Jr.; LaVaughn F., Tonsing; Robert E.
USA	5,590,376	December 31, 1996	November 13, 1992	Kou; James L. T.
USA	5,825,359	October 20, 1998	October 5, 1995	Derby; Herbert G., Charlton; Paul
USA	5,276,630	January 4, 1994	July 23, 1990	Baldwin; Joe M., Bishop; Richard A., Hansen; William G., Polley, Phillip L.
USA	5,282,268	January 25, 1994	August 14, 1991	Mieras; Herbert J., Wells; Duncan C.
USA	5,694,141	December 2, 1997	June 7, 1995	Chee; Lawrence
USA	5,748,980	May 5, 1998	December 13,	Lipe; Ralph A, Santerre;

Country	Patent	Issue Date	Priority Date	Patentee(s)
			1994	Pierre-Yves
JP	H6-56491	October 20, 1995	March 28, 1994	Ryouji Ninomiya Makoto Sakai

# 2. Publications<sup>15</sup>

Title	Date	Author	Page(s) <sup>16</sup>
Radius display can fit different orientations	July 22, 1991	Azinger, Eric	All
Plug and Play BIOS Specification, Version 1.0A	May 5, 1994	Compaq Computer Corporation, Phoenix Technologies, Ltd., and Intel Corporation	All
Research on high-speed, high-density packaging technology of communication devices		Nobuaki Sugiura	Chpt. 6
PCI Hot-Plug Specification	March 5, 1997	Nobuaki Sugiura	All
Linux-GGI Project	November 1996	Andreas Beck and Steffen Seeger	All
Object-Oriented Software Development in Structural Engineering	April 1992	Kevin Michael Elbury	All
Radius licensee introduces low-cost Pivot display	April 5, 1993	CATE CORCORAN	All
Apple Edges Toward Mainstream With Networking, VGA Support	January 14, 1991	THE INFOWORLD STAFF	All
Radius Ships Full-Motion Color TV Display System	June 25, 1990	PAUL WORTHINGTON	All
Universal Serial Bus	April 30, 1996	Jeff Chen	All
VESA Bios	July 2, 1997	VESA	All
VESA Plug and Display (P&D) Standard	June 11, 1997	VESA	All

<sup>&</sup>lt;sup>15</sup> Motorola incorporates by reference all prior art references identified in the publications listed herein and/or their file histories.

<sup>&</sup>lt;sup>16</sup> Motorola reserves the right to rely on any and all pages of any disclosed publication. Representative page numbers are identified herein for convenience only.

#### 3. Systems

All versions of the following prior art systems commercially sold, publicly known or used prior to August 8, 2005, including documents and source code describing the same:

- Hewlett Packard OmniBook 800
- Adaptec APA-1480 SlimSCSI
- miroVIDEO DC10

Motorola also reserves the right to refer to and rely on commonly referenced texts that were available at the time of the alleged invention of the '116 patent, including, for example, but not limited to: Microsoft Windows 95 Resource Kit; Hardware Design Guide for Microsoft Windows 95: A Practical Guide for Developing Plug and Play PCs and Peripherals; Programming Plug and Play; Plug and Play System Architecture; Inside the Windows 95 Registry: A Guide for Programmers, System Administrators, and Users; Writing Windows VxDs and Device Drivers (Second Edition); PCMCIA System Architecture: 16-Bit PC Cards (Second Edition); and The PCMCIA Developer's Guide.

The prior art references, individually or combined, listed above demonstrate that the asserted claims of the '116 patent are invalid due to anticipation or obviousness.

Exemplary claim charts for some of these prior art references are attached as Exhibit E. These claim charts are not an exhaustive list of how the prior art references listed above invalidate the '646 patent. Motorola reserves the right to add prior art references to the above list or to Appendix A, supplement or modify Exhibit E, and to prepare similar charts for other references.

## B. Invalidity Under 35 U.S.C. § 102 and/or § 103

Apple asserts claims 1, 8-10, 16, 18-20, 27, 33, 36-38, and 42 of the '116 Patent against Motorola in this lawsuit. All of those claims are invalid because the '116 Patent fails to meet one or more of the requirements for patentability under 35 U.S.C. §§ 102 and/or 103. The individual bases for invalidity are provided below and in Exhibit E, and Motorola reserves the right to

modify these bases. Each of the foregoing listed prior art documents, the underlying work, and/or the underlying apparatus or method qualifies as prior art under one or more sections of 35 U.S.C. § 102 and/or 35 U.S.C. § 103.

Although Motorola has identified at least one citation per limitation for each reference, each and every disclosure of the same limitation in the same reference is not necessarily identified. Rather, in an effort to focus the issues, Motorola has cited representative portions of identified references, even where a reference may contain additional support for a particular claim element. In addition, persons of ordinary skill in the art generally read a prior art reference as a whole and in the context of other publications and literature. Thus, to understand and interpret any specific statement or disclosure within a prior art reference, such persons would rely on other information within the reference, along with other publications and their general scientific knowledge. Moreover, when a reference explicitly incorporates the teachings and disclosures of other prior art in its specification, those teachings and disclosures are deemed to be part of the original reference itself. Motorola may rely upon uncited portions of the prior art references and on other publications and expert testimony to provide context, and as aids to understanding and interpreting the portions that are cited. Motorola may also rely on uncited portions of the prior art references, other disclosed publications, and the testimony of experts to establish that a person of ordinary skill in the art would have been motivated to modify or combine certain of the cited references so as to render the claims obvious.

Some or all of the asserted claims of the '116 Patent are invalid as anticipated under 35 U.S.C. § 102 in view of the prior art references identified above and in the claim charts included in Exhibit E, which identify specific examples of where each limitation of the asserted claims is found in the prior art references. As explained above, the cited portions of prior art references

identified in the attached claim charts are exemplary only and representative of the content and teaching of the prior art references, and should be understood in the context of the reference as a whole and as they would be understood by a person of ordinary skill in the art.

To the extent any limitation is deemed not to be exactly met by an item of prior art listed above, then any purported differences are such that the claimed subject matter as a whole would have been obvious to one skilled in the art at the time of the alleged invention, in view of the state of the art and knowledge of those skilled in the art. The item of prior art would, therefore, render the relevant claims invalid for obviousness under 35 U.S.C. § 103(a).

In addition, the references identified above render one or more asserted claims of the '116 Patent obvious when the references are read in combination with each other, and/or when read in view of the state of the art and knowledge of those skilled in the art. Each and every reference identified is also relevant to the state of the art at the time of the alleged invention. Any of the references disclosed above may be combined to render obvious (and therefore invalid) each of Apple's asserted claims. Motorola may rely upon a subset of the above identified references or all of the references identified above, including all references in Exhibit E, for purposes of obviousness depending on the Court's claim construction and further investigation and discovery.

Motivations to combine the above items of prior art are present in the references themselves, the common knowledge of one of ordinary skill in the art, the prior art as a whole, and/or the nature of the problems allegedly addressed by the '116 Patent. Combining the prior art references listed above and disclosed in Exhibit E would have been obvious, as the references identify and address the same technical issues and suggest very similar solutions to those issues. Motorola reserves the right to amend or supplement these preliminary invalidity contentions to

identify additional reasons that combining the references would be obvious to one of ordinary skill in the art.

Motorola also reserves the right to amend or supplement these contentions regarding anticipation or obviousness of the asserted claims, in view of further information from Apple, information discovered during discovery, or a claim construction ruling by the Court. Apple has not identified what elements or combinations it alleges were not known to one of ordinary skill in the art at the time. Therefore, for any claim limitation that Apple alleges is not disclosed in a particular prior art reference, Motorola reserves the right to assert that any such limitation is either inherent in the disclosed reference or obvious to one of ordinary skill in the art at the time in light of the same, or that the limitation is disclosed in another of the references disclosed above and in combination would have rendered the asserted claim obvious.

#### C. Other Grounds for Invalidity

Motorola identifies the following grounds for invalidity of the asserted claims of the '116 Patent based on 35 U.S.C. §§ 101 and 112. Motorola reserves the right to supplement these disclosures based on further investigation and discovery.

Motorola asserts that each asserted claim of the '116 Patent is invalid in that the '116 specification fails to particularly point out and distinctly claim the alleged invention of the '116 Patent. Motorola further asserts that each asserted claim of the '116 Patent is invalid as not containing a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the alleged invention.

Based on Motorola's present understanding of Apple's infringement contentions,

Motorola asserts that claims 1, 8-10, 16, 18-20, 27, 33, 36-38, and 42 of the '116 Patent are invalid for reciting at least the following claim terms/phrases:

• "reconfiguring a computer resource"

These claim terms/phrases as apparently construed by Apple violate the written description, enablement, and/or definiteness requirements of 35 U.S.C. § 112.

Based on Motorola's present understanding of Apple's infringement contentions, at least one or more of these claim terms/phrases are indefinite because they are inconsistent with and broader than the alleged invention disclosed in the specification and given Apple's apparent constructions of the claims, any person of ordinary skill in the art at the time of the invention would not understand what is claimed, even when the claims are read in light of the specification. Moreover, based on Motorola's present understanding of Apple's infringement contentions, each of the asserted claims in which these claim terms/phrases appear to lack written description because the specification of the '116 Patent demonstrates that the patentee neither conceived of nor demonstrated possession of all that Apple now contends the claims cover. In addition, based on Motorola's present understanding of Apple's infringement contentions, each of the asserted claims in which these claim terms/phrases appear are invalid because the specification fails to provide sufficient disclosure to enable any person of ordinary skill in the art to which it pertains, or with which it is most nearly connected, to implement the invention without undue experimentation. Therefore, the claims fail to satisfy the requirements of § 112.

The '116 patent asserted claims 33, 36-38 and 42 are also invalid under 35 U.S.C. § 101 because they claim ineligible subject matter.

## **D.** Unenforceability

Motorola asserts that the '116 patent is unenforceable. This action is still in the early stages of discovery. Because unenforceability contentions often require investigation and analysis available only through fact discovery, Motorola reserves the right to amend or supplement its unenforceability contentions at a later time. For example, Motorola may amend or supplement its unenforceability contentions after receiving information from Apple (or third parties) such as documents, discovery responses, and deposition testimony.

## VI. The '849 Patent

## A. Identification of Prior Art

At this time, Motorola contends that at least the following prior art references anticipate or render obvious, either alone or in combination, the asserted claims of the '849 Patent:

Country	Patent	Issue Date	Application Date	Patentee(s)
USA	2001/0011308	Aug. 2, 2001	Oct. 20, 1998	Clark Ted H.; Malisewski,
	A1			Steven C.; Cooper, Patrick
				R.; Crosswy, William C.;
				Crochet, Larry J.
USA	2004/0030934	Feb. 12, 2004	Oct. 19, 2001	Mizoguchi, Fumio; Wen,
	A1			Wu
USA	2004/0034801	Feb. 19, 2004	Aug. 5, 2003	Jaeger, Denny
	A1			
USA	2004/0250138	Dec. 9, 2004	Apr. 18, 2003	Schneider, Jonathan
	A1			
USA	2004/0260955	Dec. 23, 2004	Jun. 18, 2004	Mantyla, Janne
	A1			
USA	2004/0268267	Dec. 30, 2004	Jun. 25, 2003	Moravesik, Julia E.
	A1			
USA	2005/0060554	Mar. 17, 2005	Aug. 30, 2004	O'Donoghue, Niall
	A1			

## 1. Patent References<sup>17</sup>

<sup>&</sup>lt;sup>17</sup> Motorola incorporates by reference all prior art references cited in the patents listed herein and/or their file histories.

Country	Patent	Issue Date	Application Date	Patentee(s)
USA	2005/0212760	Sep. 29, 2005	Mar. 23, 2004	Marvit, David L.;
	A1			Reinhardt, Albert H. M.
USA	2005/0216862	Sep. 29, 2005	Mar. 18, 2005	Shinohara, Michinari;
	A1			Morikawa, Hiroshi
USA	2005/0248542 A1	Nov. 10, 2005	Apr. 29, 2005	Sawanobori, Keiji
USA	2005/0253817	No. 17, 2005	Jun. 16, 2003	Rytivaara, Markku;
	A1			Mustonen II, Mika;
				Tokkonen, Timo
USA	2005/0264833	Dec. 1, 2005	Mar. 7, 2005	Hiraoka, Yasushi;
	A1			Mizukura, Kiyoshi;
				Takarabe, Tomotaka
USA	2006/0066588	Mar. 30, 2006	Sep. 21, 2005	Lyon, Benjamin; Cinereski,
	A1			Stephanie; Bronstein, Chad;
				Hotelling, Steven
USA	2006/0174339 A1	Aug. 3, 2006	Oct. 5, 2005	Tao, Hai
USA	2006/0267955 A1	Nov. 30, 2006	Mar. 6, 2006	Hino, Takanori
USA	2007/0135091	Jun. 14, 2007	Dec. 8, 2005	Wassingbo, Tomas K.A.
	A1			
USA	2008/0034292	Feb. 7, 2008	Aug. 4, 2006	Brunner, Ralph; Harper,
	A1			John; Graffagnino, Peter
USA	2008/0072172	Mar. 20, 2008	Oct. 31, 2007	Shinohara, Michinari;
	A1			Morikawa, Hiroshi
USA	2010/0043062	Feb. 18, 2010	Sep. 17, 2008	Alexander, Samuel W.;
	A1			Blomquist, Scott A.; Bong,
				Koesmanto L.; Grlicky,
				Jason A.; Kuert, Adam P.;
				Lee, Christopher J.;
				Osborn II, Steven L.;
				Sontag, James L.; Stover,
				Benjamin J.
USA	5,465,084	Nov. 7, 1995	Sep. 22, 1994	Cottrell, Stephen R.
USA	5,559,961	Sep. 24, 1996	Aug. 30, 1995	Blonder, Greg E.
USA	5,677,710	Oct. 14, 1997	May 10, 1993	Thompson-Rohrlich, John
USA	5,821,933	Oct. 13, 1998	Sep. 14, 1995	Keller, Neal M.; Pickover,
				Clifford A.
USA	5,880,411	Mar. 9, 1999	Mar. 28, 1996	Gillespie, David W.; Allen,
				Timothy P.; Wolf, Ralph C.;
				Day, Shawn P.
USA	5,907,327	May 25, 1999	Aug. 15, 1997	Ogura, Tsuyoshi; Itoh,
				Akihisa
USA	6,151,208	Nov. 21, 2000	Jun. 24, 1998	Bartlett, Joel F.

Country	Patent	Issue Date	Application Date	Patentee(s)
USA	6,160,555	Dec. 12, 2000	Nov. 17, 1997	Kang, Beng H. A.; Chung, Sun-Woo
USA	6,192,478 B1	Feb. 20, 2001	Mar. 2, 1998	Elledge, Dennis D.
USA	6,249,606 B1	Jun. 19, 2001	Feb. 19, 1998	Kiraly, Jozsef; Dobler, Ervin
USA	6,323,846 B1	Nov. 27, 2001	Jan. 25, 1999	Westerman, Wayne; Elias, John G.
USA	6,347,290 B1	Feb. 12, 2002	Jun. 24, 1998	Bartlett, Joel F.
USA	6,421,453 B1	Jul. 16, 2002	May 15, 1998	Kanevsky, Dimitri; Maes, Stephane H.
USA	6,570,557 B1	May 27, 2003	Feb. 10, 2001	Westerman, Wayne C.; Elias, John G.
USA	6,573,883 B1	Jun. 3, 2003	Jun. 24, 1998	Bartlett, Joel F.
USA	6,633,310 B1	Oct. 14, 2003	May 31, 2000	Andrew, Felix G. T. I.; Gjerstad, Kevin B.; Suzue, Yutaka
USA	6,677,932 B1	Jan. 13, 2004	Jan. 28, 2001	Westerman, Wayne C.
USA	6,720,860 B1	Apr. 13, 2004	Jun. 30, 2000	Narayanaswami, Chandrasekhar
USA	6,735,695 B1	May 11, 2004	Dec. 20, 1999	Gopalakrishnan, Ponani S.; Kanevsky, Dimitri; Maes, Stephane H.
USA	6,996,783 B2	Feb. 7, 2006	Jan. 28, 2002	Brown, Michael W.; Hately, Andrew D.; Lawrence, Kelvin R.; Paolini, Michael A.
USA	7,124,433 B2	Oct. 17, 2006	Dec. 10, 2002	Little, Alex D.
USA	7,151,843 B2	Dec. 19, 2006	Jan. 25, 2005	Rui, Yong; Chen, Yunqiang
USA	7,174,462 B2	Feb. 6, 2007	Nov. 12, 2002	Pering, Trevor A.; Light, John J.; Want, Roy; Sundararajan, Muralidharan
USA	7,263,670 B2	Aug. 28, 2007	Jun. 10, 2004	Rekimoto, Junichi
USA	7,292,230 B2	Nov. 6, 2007	Sep. 19, 2003	Tokkonen, Timo
USA	7,308,652 B2	Dec. 11, 2007	Jun. 8, 2001	Comfort, Dawn A.; Schule, Robert J.
USA	7,334,197 B2	Feb. 19, 2008	Oct. 14, 2004	Robertson, George G.; Cameron, Kim; Czerwinski, Mary P.; Robbins, Daniel C.
USA	7,627,904 B2	Dec. 1, 2009	Sep. 29, 2003	Tokkonen, Timo
UK	2 313 460 A		May 16, 1997	Haperen, Peter V.
USA	6,275,935 B1	Aug. 14, 2001	Apr. 17, 1998	Barlow, Steven; Leaphart Jr., Eldridge; Strazds, Guntis V.; Rudbart, Curtis

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USA	6,414,696 B1	Jul. 2, 2002	Sep. 4, 1998	Ellenby, John; Ellenby, Thomas; Ellenby, Peter; Page, Joseph	
USA	6,664,982 B1	Dec. 16, 2003	Jan. 15, 1997	Bi, Depeng	
USA	7,231,231 B2	Jun. 12, 2007	Oct. 14, 2003	Kokko, Petri; Autio, Markku	
USA	7,286,063 B2	Oct. 23, 2007	Nov. 26, 2003	Gauthey, Darryl; Farine, Pierre-Andre	
USA	7,301,527 B2	Nov. 27, 2007	Mar. 23, 2004	Marvit, David L.	
USA	2003/0001816 A1	Jan. 2, 2003	Dec. 5, 2000	Badarneh, Ziad	
USA	2006/0045312 A1	Mar. 2, 2006	Aug. 26, 2005	Bernstein, Daniel B.; Petersen, Barry L.	
USA	2007/0061126 A1	Mar. 15, 2007	Sep. 1, 2005	Russo, Anthony; Chen, Frank; Howell, Mark; Ngo, Hung; Tsuchiya, Marcia; Weigand, David	
USA	2008/0094367 A1	Apr. 24, 2008	Jul. 12, 2005	Van De Ven, Ramon E. F.; Destura, Galileo J.; Heesemans, Michael	
Int.	02/33882 A1	Apr. 25, 2002	Oct. 19, 2000	Mizoguchi, Fumio; Wen, Wu	
Int.	03/001340 A2	Jan. 3, 2003	Jun. 22, 2001	Mosttov, Kirill; Vermes, John	
Int.	2004/001560 A1	Dec. 31, 2003	Jun. 19, 2002; Sep. 16, 2002	Rytivaara, Markku; Mustonen, Mika; Tokkonen, Timo	
Int.	2004/021108 A2	Mar. 11, 2004	Aug. 27, 2002	Serpa, Michael L.	
USA	5,612,719	March 18, 1997	April 15, 1994	Beernink, Ernest H.; Foster, Gregg S.; Capps, Stephen P.	
USA	5,821,930	October 13, 1998	May 30, 1996	Hansen, Benjamin Enoch	
USA	5,880,411	March 9, 1999	March 28, 1996	Gillespie, David W; Allen, Timothy P; Wolf, Ralph C; Day, Shawn P	
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USA	6,061,050	May 9, 2000	October 27, 1995	Allport, David Edward; Rudin; John Christopher; Gimson, Roger Brian	
USA	2003/0001816	January 2, 2003	December 5, 2000	Badarneh, Ziad	
USA	2002/0018051 A1	February 14, 2002	September 15, 1998	Singh, Mona	

Country	Patent	Issue Date	Application Date	Patentee(s)	
USA	2004/0027389 A1	February 12, 2004	August 7, 2002	Bartek, Velda A.; Cox, Patrick H.; Spinks, Richard N.	
USA	2004/0119763 A1	June 24, 2004	December 23, 2002	Mizobuchi, Sachi; Mori, Elgo	
USA	2005/0057524 A1	March 17, 2005	September 16, 2003	Hill, Douglas B; Morrison, Gerald D.	
USA	2005/0132180 A1	June 16, 2005	February 4, 2005	Parker, Katherine L	
USA	2005/0162402 A1	July 28, 2005	January 27, 2004	Watanachote, Susornpol Joe	
JP	H5-4829	August 5, 1994	January 14, 1993	Hideo Kanetsuka	
JP	\$59-27285	September 5, 1985	February 17, 1984	Susumu Yoshimura Mitsuo Saito	
JP	H1-70937	October 4, 1990	March 23, 1989	Haruhiko Arakawa Soman Maeda Koji Hamaoka Shigeru Mori	

# 2. Publications<sup>18</sup>

Title	Date	Author	Page(s) <sup>19</sup>
A Base for Portable Communications	1991	S.H. Goldberg;	259-279
Software, IBM Systems Journal, vol. 30		J.A. Mounton, Jr.	
No. 3, Armonk, NY			
A Brief History of the Green Project	Undated	N/A	1-2
(Web Archive)			
A Caching Relay for the World Wide	Feb. 6, 1994	Steve Glassman	1-7
Web			
A Catalog of Products and Services	1992	GO Corporation	1-106
A Close-Up of OpenDoc; AIXpert	Jun. 1994	Kurt Piersol	1-8
GridLock 1.3.2	Oct. 8, 2003	Pdabusiness,	
		Softonic Int. S.L.	
Newton Apple MessagePad HandBook	1995	Apple Computer	
		Inc.	

<sup>&</sup>lt;sup>18</sup> Motorola incorporates by reference all prior art references identified in the publications listed herein and/or their file histories.

<sup>&</sup>lt;sup>19</sup> Motorola reserves the right to rely on any and all pages of any disclosed publication. Representative page numbers are identified herein for convenience only.

## 3. Systems

All versions of the following prior art systems commercially sold, publicly known or used prior to May 5, 1995, including documents and source code describing the same:

- Gridlock System
- Apple Newton System

### B. Invalidity Under 35 U.S.C. § 102 and/or § 103

Apple asserts claims 1-10, 12-14, and 16-18 of the '849 Patent against Motorola in this lawsuit. All of those claims are invalid because the '849 Patent fails to meet one or more of the requirements for patentability under 35 U.S.C. §§ 102 and/or 103. The individual bases for invalidity are provided below and in Exhibit F, and Motorola reserves the right to modify these bases. Each of the foregoing listed prior art documents, the underlying work, and/or the underlying apparatus or method qualifies as prior art under one or more sections of 35 U.S.C. § 102 and/or 35 U.S.C. § 103.

Although Motorola has identified at least one citation per limitation for each reference, each and every disclosure of the same limitation in the same reference is not necessarily identified. Rather, in an effort to focus the issues, Motorola has cited representative portions of identified references, even where a reference may contain additional support for a particular claim element. In addition, persons of ordinary skill in the art generally read a prior art reference as a whole and in the context of other publications and literature. Thus, to understand and interpret any specific statement or disclosure within a prior art reference, such persons would rely on other information within the reference, along with other publications and their general scientific knowledge. Moreover, when a reference explicitly incorporates the teachings and disclosures of other prior art in its specification, those teachings and disclosures are deemed to be part of the original reference itself. Motorola may rely upon uncited portions of the prior art references and on other publications and expert testimony to provide context, and as aids to understanding and interpreting the portions that are cited. Motorola may also rely on uncited portions of the prior art references, other disclosed publications, and the testimony of experts to establish that a person of ordinary skill in the art would have been motivated to modify or combine certain of the cited references so as to render the claims obvious.

Some or all of the asserted claims of the '849 Patent are invalid as anticipated under 35 U.S.C. § 102 in view of the prior art references identified above and in the claim charts included in Exhibit F, which identify specific examples of where each limitation of the asserted claims is found in the prior art references. As explained above, the cited portions of prior art references identified in the attached claim charts are exemplary only and representative of the content and teaching of the prior art references, and should be understood in the context of the reference as a whole and as they would be understood by a person of ordinary skill in the art.

To the extent any limitation is deemed not to be exactly met by an item of prior art listed above, then any purported differences are such that the claimed subject matter as a whole would have been obvious to one skilled in the art at the time of the alleged invention, in view of the state of the art and knowledge of those skilled in the art. The item of prior art would, therefore, render the relevant claims invalid for obviousness under 35 U.S.C. § 103(a).

In addition, the references identified above render one or more asserted claims of the '849 Patent obvious when the references are read in combination with each other, and/or when read in view of the state of the art and knowledge of those skilled in the art. Each and every reference identified is also relevant to the state of the art at the time of the alleged invention. Any of the

references disclosed above may be combined to render obvious (and therefore invalid) each of Apple's asserted claims. Motorola may rely upon a subset of the above identified references or all of the references identified above, including all references in Exhibit F, for purposes of obviousness depending on the Court's claim construction and further investigation and discovery.

Motivations to combine the above items of prior art are present in the references themselves, the common knowledge of one of ordinary skill in the art, the prior art as a whole, and/or the nature of the problems allegedly addressed by the '849 Patent. Combining the prior art references listed above and disclosed in Exhibit F would have been obvious, as the references identify and address the same technical issues and suggest very similar solutions to those issues. Motorola reserves the right to amend or supplement these preliminary invalidity contentions to identify additional reasons that combining the references would be obvious to one of ordinary skill in the art.

Motorola also reserves the right to amend or supplement these contentions regarding anticipation or obviousness of the asserted claims, in view of further information from Apple, information discovered during discovery, or a claim construction ruling by the Court. Apple has not identified what elements or combinations it alleges were not known to one of ordinary skill in the art at the time. Therefore, for any claim limitation that Apple alleges is not disclosed in a particular prior art reference, Motorola reserves the right to assert that any such limitation is either inherent in the disclosed reference or obvious to one of ordinary skill in the art at the time in light of the same, or that the limitation is disclosed in another of the references disclosed above and in combination would have rendered the asserted claim obvious.

## C. Other Grounds for Invalidity

Motorola identifies the following grounds for invalidity of the asserted claims of the '849 Patent based on 35 U.S.C. § 112. Motorola reserves the right to supplement these disclosures based on further investigation and discovery.

Motorola asserts that each asserted claim of the '849 Patent is invalid in that the '849 specification fails to particularly point out and distinctly claim the alleged invention of the '849 Patent. Motorola further asserts that each asserted claim of the '849 Patent is invalid as not containing a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the alleged invention.

Based on Motorola's present understanding of Apple's infringement contentions, Motorola asserts that claims 1-10, 12-14, and 16-18 of the '849 Patent are invalid for reciting at least the following claim terms/phrases:

- "predefined display path"
- "a channel"
- "an unlock image"
- "user-interface unlock state"
- "modules"

These claim terms/phrases as apparently construed by Apple violate the written description, enablement, and/or definiteness requirements of 35 U.S.C. § 112.

Based on Motorola's present understanding of Apple's infringement contentions, at least one or more of these claim terms/phrases are indefinite because they are inconsistent with and broader than the alleged invention disclosed in the specification and given Apple's apparent constructions of the claims, any person of ordinary skill in the art at the time of the invention would not understand what is claimed, even when the claims are read in light of the specification. Moreover, based on Motorola's present understanding of Apple's infringement contentions, each of the asserted claims in which these claim terms/phrases appear to lack written description because the specification of the '849 Patent demonstrates that the patentee neither conceived of nor demonstrated possession of all that Apple now contends the claims cover. In addition, based on Motorola's present understanding of Apple's infringement contentions, each of the asserted claims in which these claim terms/phrases appear are invalid because the specification fails to provide sufficient disclosure to enable any person of ordinary skill in the art to which it pertains, or with which it is most nearly connected, to implement the invention without undue experimentation. Therefore, the claims fail to satisfy the requirements of § 112.

#### **D.** Unenforceability

Motorola asserts that the '849 patent is unenforceable. However, this action is still in the early stages of discovery. Because unenforceability contentions often require investigation and analysis available only through fact discovery, Motorola reserves the right to amend or supplement its unenforceability contentions at a later time. For example, Motorola may amend or supplement its unenforceability contentions after receiving information from Apple (or third parties) such as documents, discovery responses, and deposition testimony.

Dated: June 20, 2011

Respectfully submitted,

MOTOROLA SOLUTIONS, INC. (f/k/a MOTOROLA, INC.) AND MOTOROLA MOBILITY, INC.

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