UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C. 20436

Before the Honorable Robert K. Rogers, Jr.
Administrative Law Judge

In the Matter of **CERTAIN WIRELESS DEVICES WITH 3G AND/OR 4G CAPABILITIES AND COMPONENTS THEREOF**	**Investigation No. 337-TA-868**

HUAWEI RESPONDENTS RESPONSE TO COMPLAINT UNDER SECTION 337 OF THE TARIFF ACT OF 1930, AS AMENDED, AND NOTICE OF INVESTIGATION

Pursuant to 19 C.F.R. § 210.13, Respondents Huawei Technologies Co., Ltd. ("Huawei Technologies"), Huawei Device USA, Inc. ("Huawei Device USA") and Futurewei Technologies, Inc. ("Futurewei") (collectively, the "Huawei Respondents" or "Huawei") herby provide a response to the Complaint filed under Section 337 of the Tariff Act of 1930, 19 U.S.C. § 1337 ("Section 337"), by InterDigital Communications, Inc., InterDigital Technology Corporation, IPR Licensing, Inc. and InterDigital Holdings, Inc. (collectively, "InterDigital" or "Complainants").

While Huawei has responded to all paragraphs of the Complaint, to the extent many sequential paragraphs of the Complaint call for duplicative responses, Huawei has provided aggregated responses, where its responses are applicable across a range of enumerated paragraphs and its responses would be unduly repetitious if individually repeated. Huawei has adopted the headings found in the Complaint for ease of reference. However, to the extent that such headings themselves contain factual or legal characterizations, Huawei denies such characterizations.

RESPONSE TO THE NOTICE OF INVESTIGATION

Responding to the Notice of Investigation that the Commission instituted pursuant to notice published in the Federal Register on February 5, 2013, Huawei admits that the International Trade Commission has initiated an Investigation under Section 337 and that the Huawei Respondents are named in that Notice. Huawei otherwise denies that any factual or legal basis exists to conclude that Section 337 has been violated in this investigation by any of the Huawei Respondents. Accordingly, Huawei denies any and all allegations thereof.

RESPONSE TO THE COMPLAINT

I. INTRODUCTION

1.1 Huawei admits that Complainants have filed a Complaint with the Commission pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337. Huawei denies the remaining statements and allegations of paragraph 1.1.

1.2 Huawei admits that Complainants have named as respondents the entities listed in this paragraph.

1.3 Huawei admits that Exhibits 1-7 to the Complaint contain what Complainants allege to be certified copies of U.S. Patent Nos. U.S. Patent No. 7,190,966 ("the '966 patent"); U.S. Patent No. 7,286,847 (''the '847 patent"); U.S. Patent No. 8,009,636 ("the '636 patent"); U.S. Patent No. 7,706,830 (''the '830 patent"); U.S. Patent No. 7,941,151 ("the '151 patent"); U.S. Patent No. 7,616,970 (''the '970 patent"); U.S. Patent No. 7,502,406 ("the '406 patent") (collectively, "the Asserted Patents"). Huawei is without knowledge or information sufficient to form a belief as to the remaining allegations of paragraph 1.3, and therefore denies the same.

1.4 Huawei admits that Exhibits 8-14 to the Complaint contain what Complainants allege to be Patent and Trademark Office certified copies of the recorded assignments for the Asserted Patents.

1.5 Huawei is without knowledge or information sufficient to form a belief as to the allegations of paragraph 1.5, and therefore denies the same.

1.6 Huawei admits that Complainants seek certain relief. Huawei denies the statements in paragraph 1.6 to the extent they purport to allege the existence of any of the factual and legal predicates for the relief requested. Furthermore, Huawei denies that Complainants are entitled to the relief requested.

II. COMPLAINANTS

A. InterDigital Communications, Inc.

2.1 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 2.1, and therefore, denies the same.

B. InterDigital Holdings, Inc.

2.2 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 2.2, and therefore, denies the same.

C. InterDigital Technology Corporation

2.3 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 2.3, and therefore, denies the same.

D. IPR Licensing, Inc.

2.4 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 2.4, and therefore, denies the same.

E. InterDigital's History

2.5-2.10 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 2.4-2.10, and therefore, denies the same.

III. PROPOSED RESPONDENTS

A. Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Telecommunications America, LLC

3.1 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 3.1, and therefore, denies the same.

3.2 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 3.2, and therefore, denies the same.

3.3 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 3.3, and therefore, denies the same.

B. Nokia Corporation and Nokia Inc.

3.4 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 3.4, and therefore, denies the same.

3.5 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 3.5, and therefore, denies the same.

C. ZTE Corporation and ZTE (USA) Inc.

3.6 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 3.6, and therefore, denies the same.

3.7 Huawei is without direct knowledge as to the facts alleged in paragraph 3.7 of the Complaint, and therefore, denies the same.

D. Huawei Technologies Co., Ltd., FutureWei Technologies, Inc. d/b/a Huawei Technologies (USA), and Huawei Device USA, Inc.

3.8 Huawei Technologies admits that it is a corporation organized and existing under the laws of the People's Republic of China and that its principal place of business is Bantian, Longgan District, Shenzhen, 518129, China. Huawei Technologies further admits that it is involved in the design, development, and manufacture of wireless devices with 3G and/or 4G capabilities. Huawei Technologies denies that it is involved in the "design, development, manufacture, importation, and sale of wireless devices with 3G and/or 4G capabilities" within the borders of the United States.

3.9 Futurewei admits that it is a Texas corporation with a principal place of business at 5700 Tennyson Parkway, Suite #500, Plano, Texas 75024. Futurewei denies that it is involved with the importation, sale, and distribution of Huawei Technologies Co., Ltd.'s wireless products with 3G and/or 4G capabilities in the United States. Futurewei further supplements that, as of December 1, 2011, it transferred certain of its assets and liabilities to Huawei Technologies USA, Inc. ("Huawei Tech. USA") and certain of its assets and liabilities to Huawei Device USA, Inc. ("Huawei Device USA"). Futurewei and Huawei Tech. USA are subsidiaries of Huawei Technologies Cooperatief U.A., which is a subsidiary of Huawei Technologies Co., Ltd. Huawei Device USA is a subsidiary of Huawei Device (Hong Kong) Co., Ltd., which in turn is also a subsidiary of Huawei Technologies Co., Ltd. Huawei Device USA is involved with the importation, sale, and distribution of Huawei Technologies Co., Ltd.'s wireless products with 3G and/or 4G capabilities in the United States.

3.10 Huawei Device USA admits that it is a Texas corporation with a principal place of business at 5700 Tennyson Parkway, Suite #600, Plano, Texas 75024. Huawei Device USA further admits that it is a subsidiary of Huawei Device (Hong Kong) Co., Ltd., which is a

subsidiary of Huawei Technologies Co., Ltd. Huawei Device USA further admits that it is involved with the importation, sale, and distribution of Huawei Technologies Co., Ltd.'s wireless products with 3G and/or 4G capabilities in the United States.

IV. THE TECHNOLOGY AND PRODUCTS-AT-ISSUE

4.1 Huawei admits that the Complaint accuses certain "3G and/or 4G" devices. Huawei denies the statements in paragraph 4.1 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested, and in particular to the extent that they allege infringement of any patent based on "compliance" with an industry standard. Since neither paragraph 4.1 nor footnote 4 to paragraph 4.1 identify any specific Huawei product with 3G and/or 4G capabilities as products-at-issue in the Complaint, Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 4.1, and therefore, denies the same.

4.2 Huawei admits that the Complaint accuses certain devices with the capabilities listed in paragraph 4.2. Huawei denies the statements in paragraph 4.2 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Because paragraph 4.2 does not identify any specific Huawei product with 3G UMTS/WCDMA, 3G CDMA2000, or 4G capabilities as products-at-issue in the Complaint, Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 4.2, and therefore, denies the same.

4.3 Huawei denies the statements in paragraph 4.3 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 4.3, and therefore, denies the same.

4.4 Huawei denies the statements in paragraph 4.4 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 4.4, and therefore, denies the same.

4.5 Huawei admits that UMTS/WCDMA includes technologies known as HSDPA, HSUPA and HSPA+ , that CDMA2000 includes technologies known as 1xRTT and EV-DO, and that certain 4G standards include technologies known as LTE and LTE-Advanced. Huawei denies the statements in paragraph 4.5 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 4.5, and therefore, denies the same.

4.6 Huawei denies the statements in paragraph 4.6 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 4.6, and therefore, denies the same.

4.7 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 4.7, and therefore, denies the same.

V. THE ASSERTED PATENTS AND NON-TECHNICAL DESCRIPTION OF THE INVENTIONS

5.1 Huawei admits that Complainants assert the seven patents listed in paragraph 5.1.

A. U.S. Patent No. 7,190,966

1. Identification of the Patent and Ownership by InterDigital

5.2 Huawei admits that the ‘966 patent is entitled “Method and Apparatus for Performing an Access Procedure,” and states on its face that it issued on March 13, 2007, to Fatih

Ozluturk and Gary R. Lomp. Huawei further admits, upon information and belief, that the '966 patent issued from Patent Application No. 111169,490, filed June 29, 2005, and purports to claim priority to applications filed on filed June 27, 1996. Huawei denies the remaining allegations of paragraph 5.2.

5.3 Huawei admits that the '966 patent has one independent claim and eleven dependent claims. Huawei admits that Complainants list the Asserted Claims of the '966 patent in paragraph 5.3 of the Complaint. Huawei is without knowledge or information sufficient to form a belief as form a belief as to the truth of the remaining allegations in paragraph 5.3, and therefore, denies the same.

5.4 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.4, and therefore, denies the same.

5.5 Huawei admits that Appendices A and B are attached to the Complaint. Huawei further admits that Appendices A and B to the Complaint contain what Complainants purport to be a certified copy and three copies of the prosecution history of the '966 patent. Huawei also admits that Appendices A and B to the Complaint contain what Complainants allege to be cited references identified in the prosecution history of the '966 patent. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 5.5, and therefore, denies the same.

1. Non-Technical Description of the Patent

5.6 Huawei denies the statements in paragraph 5.6 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 5.6, and therefore, denies the same.

5.7 Huawei denies the statements in paragraph 5.7 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 5.7, and therefore, denies the same.

5.8 Huawei denies the statements in paragraph 5.8 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 5.8, and therefore, denies the same.

1. Foreign Counterparts to the Patent

5.9 Huawei admits that Exhibit 15 is attached to the Complaint. Huawei further admits that Exhibit 15 to the Complaint contains a table listing what Complainants allege to be the foreign patents and applications related to the '966 patent. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 5.9, and therefore, denies the same.

B. U.S. Patent No. 7,286,847

1. Identification of the Patent and Ownership by InterDigital

5.10 Huawei admits that the '847 patent is entitled "Method and Apparatus for Performing an Access Procedure," and states on its face that it issued October 23, 2007, to Fatih Ozluturk and Gary R. Lomp. Huawei further admits, upon information and belief, that the '847 patent issued from Patent Application No. 11/169,425, filed June 29, 2005, and purports to claim priority to an application filed on June 27, 1996. Huawei denies the remaining allegations of paragraph 5.10.

5.11 Huawei admits that the ‘847 patent has eleven independent claims and no dependent claims. Huawei admits that Complainants list the Asserted Claims of the ‘847 patent in paragraph 5.11 of the Complaint. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 5.11, and therefore, denies the same.

5.12 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.12, and therefore, denies the same.

5.13 Huawei admits that Appendices C and D are attached to the Complaint. Huawei further admits that Appendices C and D to the Complaint contain what Complainants allege to be a certified copy and three copies of the prosecution history of the ’847 patent. Huawei also admits that Appendices C and D to the Complaint contain what Complainants allege to be cited references identified in the prosecution history of the ’847 patent. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 5.13, and therefore denies same.

1. Non-Technical Description of the Patent

5.14 Huawei denies the statements in paragraph 5.14 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.14, and therefore, denies the same.

5.15 Huawei denies the statements in paragraph 5.15 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.15, and therefore, denies the same.

5.16 Huawei denies the statements in paragraph 5.16 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.16, and therefore, denies the same.

1. Foreign Counterparts to the Patent

5.17 Huawei admits that Exhibit 15 is attached to the Complaint. Huawei further admits that Exhibit 15 to the Complaint contains a table listing what Complainants allege to be the foreign patents and applications related to the '847 patent. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 5.17, and therefore, denies the same.

C. U.S. Patent No. 7,616,970

1. Identification of the Patent and Ownership by InterDigital

5.18 Huawei admits that the '970 patent is entitled "Dual Mode Unit for Short Range, High Rate and Long Range, Lower Rate Data Communications," and states on its face that it issued on November 10, 2009, to Thomas E. Gorsuch. Huawei further admits, upon information and belief, that the '970 patent issued from Patent Application No. 111326,809, filed on January 6, 2006, and purports to claim priority to an application filed on September 21, 1999. Huawei denies the remaining allegations of paragraph 5.18.

5.19 Huawei admits that the '970 patent has two independent claims and sixteen dependent claims. Huawei admits that Complainants list the Asserted Claims of the '970 patent in paragraph 5.19. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 5.19, and therefore, denies the same.

5.20 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.20, and therefore, denies the same.

5.21 Huawei admits that Appendices K and L are attached to the Complaint. Huawei further admits that Appendices K and L to the Complaint contain what Complainants allege to be a certified copy and three copies of the prosecution history of the ’970 patent. Huawei also admits that Appendices K and L to the Complaint contain what Complainants allege to be cited references identified in the prosecution history of the ’970 patent. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 5.21, and therefore denies same.

1. Non-Technical Description of the Patent

5.22 Huawei denies the statements in paragraph 5.22 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.22, and therefore, denies the same.

1. Foreign Counterparts to the Patent

5.23 Huawei admits that Exhibit 17 is attached to the Complaint. Huawei further admits that Exhibit 17 to the Complaint contains a table listing what Complainants allege to be the foreign patents and applications related to the ‘970 patent. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 5.23, and therefore, denies the same.

D. U.S. Patent No. 7,941,151

1. Identification of the Patent and Ownership by InterDigital

5.24 Huawei admits that the ‘151 patent is entitled “Method and System for Providing Channel Assignment Information Used to Support Uplink and Downlink Channels,” and states on its face that it issued on May 10, 2011, to Marian Rudolf, Stephen G. Dick, and Phillip J. Pietraski. Huawei further admits that the ‘151 patent purports to claim priority to a provisional application filed November 18, 2003.

5.25 Huawei admits that the ‘151 patent has four independent claims and fifty-four dependent claims. Huawei admits that Complainants list the Asserted Claims of the ’151 patent in paragraph 5.25 of the Complaint. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 5.25, and therefore, denies the same.

5.26 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.26, and therefore, denies the same.

5.27 Huawei admits that Appendices I and J are attached to the Complaint. Huawei further admits that Appendices I and J to the Complaint contain what Complainants allege to be a certified copy and three copies of the prosecution history of the ’151 patent. Huawei also admits that Appendices I and J to the Complaint contain what Complainants allege to be cited references identified in the prosecution history of the ’151 patent. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 5.27, and therefore denies same.

1. Non-Technical Description of the Patent

5.28 Huawei denies the statements in paragraph 5.28 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.28, and therefore, denies the same.

1. Foreign Counterparts to the Patent

5.29 Huawei admits that Exhibit 16 is attached to the Complaint. Huawei further admits that Exhibit 16 to the Complaint contains a table listing what Complainants allege to be the foreign patents and applications related to the ‘151 patent. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 5.29, and therefore, denies the same.

E. U.S. Patent No. 7,706,830

1. Identification of the Patent and Ownership by InterDigital

5.30 Huawei admits that the ‘830 patent is entitled “Method and Subscriber Unit for Performing an Access Procedure,” and states on its face that it issued on April 27, 2010, to Fatih Ozluturk and Gary Lomp. Huawei further admits, upon information and belief, that the ‘830 patent issued from U.S. Patent Application No. 12/116,263, filed on May 7, 2008 and purports to claim priority to an application filed on June 27, 1996.

5.31 Huawei admits that the ‘830 patent has six independent claims and twenty-four dependent claims. Huawei admits that Complainants list the Asserted Claims of the ’830 patent in paragraph 5.31 of the Complaint. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 5.31, and therefore, denies the same.

5.32 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.32, and therefore, denies the same.

5.33 Huawei admits that Appendices G and L are attached to the Complaint. Huawei further admits that Appendices G and L to the Complaint contain what Complainants allege to be a certified copy and three copies of the prosecution history of the ’830 patent. Huawei also admits that Appendices G and L to the Complaint contain what Complainants allege to be cited references identified in the prosecution history of the ’830 patent. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 5.33, and therefore denies same.

1. Non-Technical Description of the Patent

5.34 Huawei denies the statements in paragraph 5.34 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.34, and therefore, denies the same.

5.35 Huawei denies the statements in paragraph 5.35 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.35, and therefore, denies the same.

1. Foreign Counterparts to the Patent

5.36 Huawei admits that Exhibit 15 is attached to the Complaint. Huawei further admits that Exhibit 15 to the Complaint contains a table listing what Complainants allege to be the foreign patents and applications related to the ‘830 patent. Huawei is without direct knowledge or

information sufficient to form a belief as to the truth of the allegations in paragraph 5.36, and therefore, denies the same.

F. U.S. Patent No. 8,009,636

1. Identification of the Patent and Ownership by InterDigital

5.37 Huawei admits that the ‘636 patent is entitled “Method and Apparatus for Performing an Access Procedure,” and states on its face that it issued on August 30, 2011, to Fatih Ozluturk and Gary Lomp. Huawei further admits that the ‘636 patent issued from Patent Application No. 111169,488, filed on June 29, 2005, and purports to claims priority to applications filed on June 27, 1996.

5.38 Huawei admits that the ‘636 patent has six independent claims and thirty-three dependent claims. Huawei admits that Complainants list the Asserted Claims of the ’830 patent in paragraph 5.38 of the Complaint. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 5.38, and therefore, denies the same.

5.39 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.39, and therefore, denies the same.

5.40 Huawei admits that Appendices E and F are attached to the Complaint. Huawei further admits that Appendices E and F to the Complaint contain what Complainants allege to be a certified copy and three copies of the prosecution history of the ’636 patent. Huawei also admits that Appendices E and F to the Complaint contain what Complainants allege to be cited references identified in the prosecution history of the ’636 patent. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 5.40, and therefore denies same.

1. Non-Technical Description of the Patent

5.41 Huawei denies the statements in paragraph 5.41 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.41, and therefore, denies the same.

5.42 Huawei denies the statements in paragraph 5.42 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.42, and therefore, denies the same.

1. Foreign Counterparts to the Patent

5.43 Huawei admits that Exhibit 15 is attached to the Complaint. Huawei further admits that Exhibit 15 to the Complaint contains a table listing what Complainants allege to be the foreign patents and applications related to the '636 patent. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 5.43, and therefore, denies the same.

G. U.S. Patent No. 7,502,406

1. Identification of the Patent and Ownership by InterDigital

5.44 Huawei admits that the '406 patent us entitled "Automatic Power Control System for a Code Division Multiple Access (COMA) Communications System," and states on its face that it issued on March 10, 2009, to John Kowalski, Gary Lomp, and Fatih Ozluturk. Huawei further admits that the '406 patent issued from Patent Application No. 10/084,007, filed on February 27, 2002, and purports to claim priority to a provision application filed June 30, 1995.

5.45 Huawei admits that the ‘406 patent has six independent claims and thirty-four dependent claims. Huawei admits that Complainants list the Asserted Claims of the ’406 patent in paragraph 5.45 of the Complaint. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 5.45, and therefore, denies the same.

5.46 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.46, and therefore, denies the same.

5.47 Huawei admits that Appendices M and N are attached to the Complaint. Huawei further admits that Appendices M and N to the Complaint contain what Complainants allege to be a certified copy and three copies of the prosecution history of the ’406 patent. Huawei also admits that Appendices M and N to the Complaint contain what Complainants allege to be cited references identified in the prosecution history of the ’406 patent. Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 5.47, and therefore denies same.

1. Non-Technical Description of the Patent

5.48 Huawei denies the statements in paragraph 5.48 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.48, and therefore, denies the same.

5.49 Huawei denies the statements in paragraph 5.49 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 5.49, and therefore, denies the same.

1. Foreign Counterparts to the Patent

5.50 Huawei admits that Exhibit 18 is attached to the Complaint. Huawei further admits that Exhibit 18 to the Complaint contains a table listing what Complainants allege to be the foreign patents and applications related to the '406 patent. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 5.50, and therefore, denies the same.

VI. LICENSES

6.1 Huawei admits that Confidential Exhibits 19 and 20 are attached to the Complaint. Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 6.1, and therefore, denies the same.

VII. UNLAWFUL AND UNFAIR ACTS OF RESPONDENTS- PATENT INFRINGEMENT

7.1 Huawei admits that certain of its devices interoperate with UMTS/WCDMA based telecommunication systems, CDMA2000-based telecommunication systems and/or LTE based telecommunication systems. Huawei denies the statements in paragraph 7.1 to the extent that they purport to allege the existence of any factual or legal predicates for the requested relief. Huawei is without direct knowledge or information sufficient to form a belief as to the facts alleged in paragraph 7.1 regarding the accused products of respondents other than Huawei, and therefore denies same. Huawei denies any remaining allegations of this paragraph.

A. Samsung

7.2-7.17 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraphs 7.2 through 7.17, respectively, and therefore, denies the same.

B. Nokia

7.18-7.26 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraphs 7.18 through 7.26, respectively, and therefore, denies the same.

C. ZTE

7.27-7.37 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraphs 7.27 through 7.37, respectively, and therefore, denies the same.

D. Huawei

7.38 Huawei admits that certain of its devices interoperate with 3G UMTS/WCDMA based telecommunication systems that implement Release 99, Release 4, HSDPA, HSUPA, and/or HSPA+ features. Huawei further admits that certain of its devices interoperate with 3G CDMA2000 telecommunications systems that implement 1xRTT and/or EV-DO features. Huawei also admits that certain of its devices interoperate with 4G LTE telecommunications systems. Huawei denies the statements in paragraph 7.38 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei specifically denies that it "manufactures or has manufactured for it, sells for importation, imports, and/or sells after importation wireless devices with 3G capabilities that infringe one or more of the Asserted Patents." Huawei denies any remaining allegations of this paragraph.

7.39 Huawei admits that certain of its devices interoperate with 3G UMTS/WCDMA based telecommunication systems that implement Release 99, Release 4, HSDPA, HSUPA, and/or HSPA+ features. Huawei further admits that certain of its devices interoperate with 3G CDMA2000 telecommunications systems that implement 1xRTT and/or EV-DO features.

Huawei also admits that certain of its devices interoperate with 4G LTE telecommunications systems. Huawei admits that Exhibits 47-51 are attached to the Complaint and purport to be infringement claim charts regarding Huawei's accused products. Huawei denies the statements in paragraph 7.39 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei specifically denies that its products infringe the Asserted Patents. Huawei denies any remaining allegations of this paragraph.

7.40 Huawei denies that the products listed in paragraph 7.40 infringe one or more of the Asserted Patents. Furthermore, Huawei denies that Complainants are entitled to the relief requested. Huawei denies any remaining allegations of this paragraph.

7.41 Huawei admits that the Complaint includes Exhibits 47 and 48 consisting of charts listing Complainants' allegations against certain Huawei devices. Huawei denies the statements in paragraph 7.41 and Exhibits 47 and 48 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei denies any remaining allegations of this paragraph.

7.42 Huawei admits that the Complaint includes Exhibits 49 and 50 consisting of charts listing Complainants' allegations against certain Huawei devices. Huawei denies the statements in paragraph 7.42 and Exhibits 49 and 50 to the extent that they purport to allege the existence of any of the factual and legal predicates for the relief requested. Huawei denies any remaining allegations of this paragraph.

7.43 Huawei admits that the Complaint includes Exhibit 51 consisting of a chart listing Complainants' allegations against certain Huawei devices. Huawei denies the statements in paragraph 7.43 and Exhibit 51 to the extent that they purport to allege the existence of any of the

factual and legal predicates for the relief requested. Huawei denies any remaining allegations of this paragraph.

7.44 Huawei denies the allegations of paragraph 7.44.

7.45 Huawei admits that it has tested certain of the accused products in the United States, but Huawei denies the remaining allegations of paragraph 7.45.

7.46 Huawei admits that certain of its products interoperate with 3G WCDMA-based, CDMA2000-based and/or 4G telecommunication systems. Huawei denies any remaining allegations of this paragraph.

7.47 Huawei denies the allegations of paragraph 7.47.

7.48 Huawei admits that it has had knowledge of some of the Asserted Patents at a time before the Complaint was filed, through discussions with Complainants. Huawei admits that it has received the Complaint. Huawei denies the remaining allegations of paragraph 7.48.

VIII. SPECIFIC INSTANCES OF UNFAIR IMPORTATION AND SALE

A. Samsung

8.1-8.8 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraphs 8.1 through 8.8, respectively, and therefore, denies the same.

B. Nokia

8.9-8.12 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraphs 8.9 through 8.12, respectively, and therefore, denies the same.

C. ZTE

8.13-8.18 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraphs 8.13 through 8.18, respectively, and therefore, denies the same.

D. Huawei

8.19 Huawei Devices USA admits that it imports, sells for importation, and/or sells within the United States after importation, wireless devices with 3G and/or 4G capabilities and components thereof. Futurewei and Huawei Technologies deny that they import, sell for importation, and/or sell within the United States after importation, wireless devices with 3G and/or 4G capabilities and components thereof.

8.20-8.24 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraphs 8.20 through 8.24, and therefore denies the same.

IX. HARMONIZED TARIFF SCHEDULE ITEM NUMBERS

9.1 Huawei admits that the Harmonized Tariff Schedule of the United States item numbers for the following items are as follows: for telephones for cellular or other wireless networks, HTSUS 8517.12; machines for the reception, conversion, and transmission of voice, images or other data, including modems, HTSUS 8517.62; parts for articles under heading 8517, including telephones for cellular or other wireless networks, HTSUS 8517.70; and automatic data processing machines, including laptop and desktop computers, and components thereof, HTSUS 8471.30 to 8471.80. Huawei denies any remaining allegations of paragraph 9.1.

X. THE DOMESTIC INDUSTRY

10.1 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 10.1, and therefore, denies the same.

10.2 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 10.2, and therefore, denies the same.

10.3 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 10.3, and therefore, denies the same.

10.4 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 10.4, and therefore, denies the same.

10.5 Huawei believes that a response is not required concerning Complainants' interpretation of Commission orders in investigations where Huawei was not a party. In any case, Huawei is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations of paragraph 10.5, and therefore, denies the same.

10.6 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 10.6, and therefore, denies the same.

10.7 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraph 10.7, and therefore, denies the same.

XI. RELATED LITIGATION

11.1 Huawei admits that, on information and belief, concurrently with the filing of the Complaint, InterDigital also filed complaints in the U.S. District Court for the District of Delaware, in each one alleging infringement of each of the patents asserted in this Complaint against the defendant named in that lawsuit.

11.2 - 11.8 Huawei is without knowledge or information sufficient to form a belief as to the truth of the allegations of paragraphs 11.2 through 11.8, and therefore, denies the same.

11.2 Huawei admits that on July 26, 2011, Complainant filed a Section 337 complaint against Nokia Corporation, Nokia Inc., Huawei Technologies Co., Ltd., FutureWei Technologies,

Inc., ZTE Corporation, and ZTE (USA) Inc. (collectively, "Respondents"). Huawei further admits that the complaint was instituted as Investigation No. 337-TA-800, and entitled *Certain Wireless Devices with 3G Capabilities and Components Thereof*. Huawei also admits that, by amended complaint one additional patent was asserted and LG Electronics, Inc., LG Electronics U.S.A., Inc., and LG Electronics Mobilecomm U.S.A., Inc. were added as respondents.

11.3 Huawei admits that, in the 800 investigation, the LG Respondents filed a motion to terminate the Investigation as to LG, and on June 4, 2012, the ALJ granted LG's motion. Huawei is without direct knowledge or information sufficient to form a belief as to the truth of the remaining allegations of paragraph 11.10, and therefore, denies the same.

11.4 Huawei admits that it filed a complaint with the Court of Chancery of the State of Delaware against InterDigital Technology Corporation, IPR Licensing, Inc., and InterDigital Communications, Inc. on October 25, 2011. Huawei also admits that the complaint alleged that InterDigital had breached its contractual commitments to license standard-essential patents, and that it sought declaratory judgments: (1) that InterDigital did not offer licenses on FRAND terms; (2) that InterDigital is equitably estopped from seeking relief from Huawei's alleged infringement; and (3) determining an appropriate FRAND royalty for InterDigital's standard essential United States patents. Huawei further admits that the Delaware Chancery Court dismissed the case without prejudice on June 11, 2012. Huawei denies the remaining allegations of this paragraph.

XII. RELIEF REQUESTED

12.1 (a)-(e) Huawei denies the statements in Complainant's Requested Relief to the extent that they purport to allege the existence of any factual or legal predicates for the relief requested. Furthermore, Huawei denies that Complainant is entitled to any of the relief requested.

ADDITIONAL INFORMATION REQUIRED UNDER COMMISSION RULE 210.13(b)

Confidential Exhibit A, which is being separately filed contemporaneously with this Response, contains the information that Huawei has compiled to date in response to the requirements of Rule 210.13(b). The information found in Confidential Exhibit A is subject to all of the express qualifications outlined within that Exhibit.

AFFIRMATIVE DEFENSES

1. Huawei asserts the following affirmative defenses, reserving the right as discovery proceeds to supplement or amend these defenses with additional affirmative defenses.

First Affirmative Defense
(Invalidity)

2. The asserted claims of the '966, '847 and '151 are invalid under Section 102 and/or 103 of Title 35 of the United States Code as anticipated or obvious in light of the prior art. Huawei is in the process of obtaining prior art, including through discovery, which is in its early stages at the time of this Response. Huawei will set forth further invalidity allegations upon obtaining relevant prior art.

3. The asserted claims of the '966, '847 and '151 are also invalid under the requirements of paragraph 1 of Section 112 of Title 35 of the United States Code due to a failure to enable a person skilled in the art to make and use the alleged invention, a failure to set forth the best mode contemplated by the inventors for carrying out the alleged inventions, and/or a failure to set forth written descriptions sufficient to enable any person skilled in the art to make and use the alleged inventions. In addition, the Asserted Claims of the Asserted Patents are invalid under paragraph 2 of Section 112 of Title 35 of the United States Code because those claims are indefinite in that they fail to point out and distinctly claim the subject matters which are regarded as the alleged inventions, and contain ambiguous language and/or functional limitations that prevent a person skilled in the art from determining their full scope or meaning.

A. United States Patent No. 7,190,966

4. The asserted claims of the ’966 Patent are each invalid for failure to meet the requirements of 35 U.S.C. §§ 101, 102, 103, and/or 112.

5. Based on information and belief, and subject to further discovery, the asserted claims of the ’966 Patent are invalid under 35 U.S.C. §§ 102 and/or 103, based on at least at least the prior art references cited by the examiner during prosecution of the ’966 Patent and related applications; prior art references disclosed by InterDigital during prosecution of those applications; and/or including one or more of the following prior art references, taken alone or in combination:

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6. The asserted claims of the ’847 Patent are each invalid for failure to meet the requirements of 35 U.S.C. §§ 101, 102, 103, and/or 112.

7. Based on information and belief, and subject to further discovery, the asserted claims of the ’847 Patent are invalid under 35 U.S.C. §§ 102 and/or 103, based on at least at least the prior art references cited by the examiner during prosecution of the ’847 Patent and related applications; prior art references disclosed by InterDigital during prosecution of those applications; and/or including one or more of the following prior art references, taken alone or in combination:

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Wideband Spread Spectrum Digital Technologies Standards, Ejzak et al., Telecommunications Industry Association Subcommittee TR-45.5, Apr. 14, 1997

C. United States Patent No. 7,941,151

8. The asserted claims of the ‘151 Patent are each invalid for failure to meet the requirements of 35 U.S.C. §§ 101, 102, 103, and/or 112.

9. Based on information and belief, and subject to further discovery, the asserted claims of the ’151 Patent are invalid under 35 U.S.C. §§ 102 and/or 103, based on at least at least the prior art references cited by the examiner during prosecution of the ’151 Patent and related applications; prior art references disclosed by InterDigital during prosecution of those applications; and/or including one or more of the following prior art references, taken alone or in combination:

- U.S. Patent No. 6,438,113
- U.S. Patent No. 7,197,022
- U.S. Patent No. 7,580,394
- U.S. Patent No. 7,508,804
- U.S. Patent No. 8,332,719
- U.S. Patent No. 7,558,602
- U.S. Patent No. 8,363,593
- U.S. Patent No. 5,729,541
- U.S. Patent No. 6,963,540
- U.S. Patent No. 5,237,610
- U.S. Patent No. 5,313,467
- U.S. Patent No. 5,862,160
- U.S. Patent No. 6,104,709
- U.S. Patent No. 6,366,779
- U.S. Patent No. 6,370,134
- U.S. Patent No. 6,373,946
- U.S. Patent No. 6,405,340
- U.S. Patent No. 6,442,152
- U.S. Patent No. 7,107,014
- U.S. Patent No. 7,177,658
- U.S. Patent No. 8,023,463
- U.S. Patent Application No. 2004/0085924 Al
- U.S. Patent Application No. 2003/0050074 A1
- U.S. Patent Application No. 20020194571
- U.S. Patent Application No. 20050100038

- Amitava Ghosh, Louay Jalloul, Bob Love, Air-Interface for lXTREME/lxEV-DV Motorola, GTSS, IEEE (2001)
- Arnab Das, et al, Evolution of UMTS Toward High-Speed Downlink Packet Access;
- Troels Emil Kolding, et al., High Speed Downlink Packet Access: WCDMA Evolution, IEEE Vehicular Technology Society News (Feb, 2003)
- Amitava Ghosh, et al, Shared Channels for Packet Data Transmission in W-CDMA, IEEE, (1999)
- John Dunlop, et al., Digital Mobile Communications and the TETRA System, John Willey & Sons, Ltd. (1999)
- Downlink Control Channel Configuration for Enhanced Uplink Dedicated Transport Channel, Tdoc R1-030004 (January 7-10, 2003)
- Uplink enhancements for dedicated transport channels, Tdoc# R1-02-1250 (October 8-9, 2002)
- Control Channel Structure for High Speed DSCH (HS-DSCH), 04- R1-00-1242-1 (Oct. 10-13 2000)
- Zeng et al., Harmonization of global third generation mobile systems, IEEE Communications Magazine (2000)
- Ojanperä et al., An overview of air interface multiple access for IMT-2000/UMTS, IEEE Communications Magazine (1998)

Second Affirmative Defense
(Non-Infringement)

10. Huawei has not imported, sold for importation, or sold within the United States after importation, any product that is covered by any valid and enforceable claims of the Asserted Patents. Huawei does not infringe, or induce infringement of, any valid and/or enforceable claims of the Asserted Patents under one or more provisions of Title 35 U.S.C. § 1, *et seq.*

Third Affirmative Defense
(Lack of Domestic Industry)

11. Complainants have not adequately alleged and cannot establish the existence of a domestic industry with respect to the Asserted Patents as required by Section 337(a)(2), and as defined, in part, by Section 337(a)(3). Complainants cannot establish a "substantial investment" in licensing, research and development or other qualifying activities relating to the Asserted Patents, sufficient to satisfy the economic prong of the domestic industry requirement. Furthermore,

Complainants do not seek to establish that any licensees have made "significant investment" in plant, labor, or capital relating to articles protected by at least one claim of each of the Asserted Patents. See Complaint paragraphs 10.4–10.7; Exhibits 53-60.

Fourth Affirmative Defense
(Estoppel)

12. Complainants' claims against Huawei are barred, in whole or in part, by prosecution history estoppel.

Fifth Affirmative Defense
(Prosecution Laches)

13. Complainants' claims are barred in whole or in part by delay in prosecuting the patent applications that matured into the Asserted Patents.

14. One or more of the Asserted Patents have a purported effective filing date of more than 10 years before the date Complainants requested this Investigation. Complainants, based on their representations that one or more of the Asserted Patents claim benefit under 35 U.S.C. § 120 to a series of continuation applications, could have claimed the subject matter now recited in the asserted claims of one or more of the Asserted Patents at any time from the purported effective filing dates of one or more of the Asserted Patents. Complainants so unreasonably delayed filing the asserted claims that they are estopped from asserting them against Respondents.

Sixth Affirmative Defense
(Patent Misuse)

15. On information and belief, InterDigital is barred from asserting the Asserted Patents by the equitable doctrine of patent misuse. InterDigital and Huawei are members of relevant standard-setting organizations ("SSOs"), including the European Telecommunications Standardization Institute ("ETSI") and the 3rd Generation Partnership Project ("3GPP").

16. InterDigital declared to relevant SSOs each of the Combined Asserted Patents to be "essential" Intellectual Property Rights ("IPR") to 3G and/or 4G standards, and committed to provide licenses to each of the Combined Asserted Patents on FRAND terms.

17. The SSOs and their members, for the benefit of members and non-members, including Huawei, relied on InterDigital's FRAND commitments when they adopted technologies including proposals from InterDigital into 3G and 4G standards, and also later when they did not alter existing standards after InterDigital disclosed patents that InterDigital contended may be infringed by manufacturers practicing then existing standards. SSOs seek FRAND commitments to ensure that patent owners will not attempt to block manufacture and sale of products practicing the standards, and to ensure that patent owners will not seek to impose onerous royalties or licensing terms and conditions on such products, given that the adoption of the standard eliminates alternative technologies competing to become incorporated into the standard.

18. Moreover, market participants like Huawei have made very substantial investments to develop and market products designed to be compatible with these standards in reliance upon InterDigital explicit and implicit commitments to license its purportedly essential IPR, including each of the Combined Asserted Patents, on FRAND terms and conditions. InterDigital, however, in breach of its commitments, has failed and refused entirely to offer and grant a separate license, on FRAND or other terms and conditions, to Futurewei and Huawei Device USA as requested by them.

19. In further breach of its commitments, InterDigital has failed to offer and grant a license to Huawei with FRAND terms and conditions, despite repeated requests. In particular, the terms and conditions offered to Huawei are significantly less favorable than the terms and conditions of licenses that InterDigital has entered into with prior licensees, including licensees

that are competitors of Huawei. At the same time, InterDigital has refused to accept FRAND license terms and conditions counteroffered by Huawei.

20. At all relevant times, Huawei has been and is willing to license each of the Combined Asserted Patents on FRAND terms and conditions. Indeed, Huawei affirmatively has sought to establish a FRAND royalty rate for the Combined Asserted Patents for sales in the US so the royalty could be paid. Huawei similarly commenced litigation now pending in China to establish a royalty rate for InterDigital Chinese patents for sales in China so that royalty could be paid.

The Importance Of SSOs And FRAND Commitments To The Wireless Industry

21. Mobile wireless carriers, handset manufacturers, and chipset manufacturers, among others, participate in SSOs to develop standards facilitating interoperability among cellular networks and various mobile devices. Once standards are adopted, competing manufacturers, carriers, and sellers can offer products and services that interoperate with each other according to the standard.

22. Standards play an important role in the development of wireless data and telecommunications technologies by facilitating product development and network creation. Market participants are generally willing to invest in the industry because, so long as their products interoperate according to published standards, those products will operate effectively within the networks and be compatible with other third-party products.

23. Agreed standards reduce costs for component suppliers, product manufacturers and consumers. For suppliers, standardization can reduce the need to develop products to a particular manufacturer's specifications. Because components may be sold to multiple manufacturers, manufacturing volumes can increase and per unit costs decrease. Product manufacturers also

benefit from increased price competition among suppliers. When components are made to interoperate according to a standard, switching suppliers typically does not require a substantial redesign of the manufacturer's products. Lower switching costs increase competition among suppliers, leading to lower consumer prices.

24. The standard-setting process moves the industry towards a common standard by eliminating alternatives in favor of an agreed protocol for communication among devices. The process can confer significant market power to an entity claiming ownership of a technology included in a standard. That is particularly true in the telecommunications markets.

25. Before standardization, the royalty a patentee could earn from a patent license for its technology was constrained by the availability of alternative technologies to perform similar functions. However, once a standard incorporates a patented technology, alternative technologies are no longer economically practical. Left unconstrained, owners of essential IPR covering functions within the standard could demand exorbitant royalties from participants who effectively must use the IPR.

26. To address this problem, most SSOs — including those relevant to this investigation — have adopted IPR policies. These IPR policies generally contain requirements concerning: (a) the disclosure of IPR that may claim any portion of the specifications of the standard; and (b) whether and to what extent patentees declaring purported essential IPR must commit to licensing that IPR on FRAND terms and conditions.

27. As set forth in greater detail below, the IPR policies at issue in this case require participants declaring essential IPR to commit to license that IPR on FRAND terms. Market participants rely on these commitments to ensure, among other things, that they will not be held up by patentees seeking unreasonable royalties after the industry is locked into the standard.

The SSOs Have IPR Policies Designed To Prevent Anticompetitive Hold-Up

28. InterDigital is, and was at the relevant times, a member of and has participated in development of standards by multiple SSOs, including ETSI, 3GPP and ITU.

29. ETSI is an SSO governed by French law and is responsible for the standardization of information and communication technologies for the benefit of its members and third parties. 3GPP is a collaborative activity through a group of recognized SSOs (its "Organizational Partners"), including ETSI. 3GPP develops technical specifications subsequently presented to and adopted as standards by its Organizational Partners, such as ETSI. ITU is the United Nations specialized agency for information and communication technologies.

30. Like other SSOs, ETSI, 3GPP and ITU have developed IPR Policies designed to mitigate the risk of the anticompetitive hold-up by IPR owners inherent in any standard-setting process.

ETSI's IPR Policy

31. ETSI's IPR Policy is set forth in Annex 6 of its Rules of Procedure. Clause 4.1 of the ETSI IPR Policy governs disclosure of essential IPR, requiring ETSI members to declare all known essential IPR in a timely manner:

> [E]ach MEMBER shall use its reasonable endeavours, in particular during the development of a STANDARD or TECHNICAL SPECIFICATION where it participates, to inform ETSI of ESSENTIAL IPRs in a timely fashion. In particular, a MEMBER submitting a technical proposal for a STANDARD or TECHNICAL SPECIFICATION shall, on a bona fide basis, draw the attention of ETSI to any of that MEMBER's IPR which might be ESSENTIAL if that proposal is adopted.

32. Clause 15 of ETSI's IPR Policy defines IPR to mean "any intellectual property right conferred by statute law including applications therefor other than trademarks." Therefore,

market participants have a reasonable expectation that all potentially essential patents or patent applications will be disclosed to ETSI.

33. Clause 6 of ETSI's IPR Policy governs the availability of licenses to essential IPR, requesting ETSI members to grant licenses to essential IPR on FRAND terms. In relevant part, Clause 6.1 states:

> When an ESSENTIAL IPR relating to a particular STANDARD or TECHNICAL SPECIFICATION is brought to the attention of ETSI, the Director-General of ETSI shall immediately request the owner to give within three months an undertaking in writing that it is prepared to grant irrevocable licenses on fair, reasonable and non-discriminatory terms and conditions under such IPR to at least the following extent:
>
> - MANUFACTURE, including the right to make or have made customized components and sub-systems to the licensee's own design for use in MANUFACTURE;
> - sell, lease or otherwise dispose of EQUIPMENT so MANUFACTURED;
> - repair, use, or operate EQUIPMENT; and
> - use METHODS.

34. Clause 8 of ETSI's IPR Policy governs situations where an owner of essential IPR refuses to undertake a FRAND commitment. In relevant part, Clause 8.1 states:

> 8 .1.1 Where prior to the publication of a STANDARD or a TECHNICAL SPECIFICATION an IPR owner informs ETSI that it is not prepared to license an IPR in respect of a STANDARD or TECHNICAL SPECIFICATION in accordance with Clause 6.1 above, the General Assembly shall review the requirement for that STANDARD or TECHNICAL SPECIFICATION and satisfy itself that a viable alternative technology is available for the STANDARD or TECHNICAL SPECIFICATION which:
>
> - is not blocked by that IPR; and
> - satisfies ETSI's requirements.
>
> 8.1.2. Where, in the opinion of the General Assembly, no such viable alternative technology exists, work on the STANDARD or TECHNICAL SPECIFICATION

shall cease, and the Director-General of ETSI shall observe the following procedure:

a) If the IPR owner is a MEMBER,

i) the Director-General of ETSI shall request that MEMBER to reconsider its position.

ii) If that MEMBER however decides not to withdraw its refusal to license the IPR, it shall then inform the Director-General of ETSI of its decision and provide a written explanation of its reasons for refusing to license that IPR, within three months of its receipt of the Director-General's request.

iii) The Director-General of ETSI shall then send the MEMBER's explanation together with relevant extracts from the minutes of the General Assembly to the ETSI Counsellors for their consideration.

35. Thus, if an ETSI member refuses to agree to FRAND licensing of essential IPR, ETSI will select an alternative technology to incorporate into the standard, or will stop work entirely on the standard if no alternative is available.

36. ETSI's IPR Policy was designed to benefit all ETSI members as well as nonparties complying with ETSI standards. The explicit objective of the policy, described in Clause 3.1, is to "reduce the risk" to those complying with the standards and technical specifications "that investment in the preparation, adoption and application of STANDARDS could be wasted as a result of an ESSENTIAL IPR for a STANDARD or TECHNICAL SPECIFICATION being unavailable."

3GPP's IPR Policy

37. As a collaborative activity among its Organizational Partners (including ETSI), 3GPP requires its members to declare and offer licenses to essential IPR on FRAND terms, as well as to abide by the IPR policies of their respective Organizational Partner. Article 55 of the 3GPP Working Procedures states, in relevant part:

> Individual Members shall be bound by the IPR Policy of their respective Organizational Partner.
>
> Individual Members should declare at the earliest opportunity, any IPRs which they believe to be essential, or potentially essential, to any work ongoing within 3GPP. Declarations should be made by Individual Members to their respective Organizational Partners.
>
> Organizational Partners should encourage their respective members to grant licenses on fair, reasonable terms and conditions and on a non-discriminatory basis.

38. As a 3GPP "Individual Member," InterDigital was thus "bound by the IPR Policy" of ETSI, the "Organization Partner" through which InterDigital participated in 3GPP. That policy requires InterDigital to grant a FRAND license as described in paragraphs 30-34 of these counterclaims.

ITU's IPR Policy

39. Under ITU's Common Patent Policy, if a technical recommendation is developed and essential IPR has been disclosed, then either the patent holder must declare that it is willing to negotiate licenses "free of charge" or "on a non-discriminatory basis on reasonable terms and conditions." If the patent holder is not willing to declare under either of those provisions, and indicates an unwillingness to license under those constraints, then "the Recommendation | Deliverable shall not include provisions depending on the patent."

InterDigital Has Binding FRAND Obligations With Respect To The Combined Asserted Patents

40. During all relevant times, InterDigital was a member of ETSI, 3GPP and ITU. InterDigital participated in ETSI's, 3GPP's and ITU's development of mobile communications standards for, among others, Global System for Mobile Communications ("GSM"), Universal Mobile Telecommunications System ("UMTS"), CDMA2000 and 3GPP.

41. InterDigital explicitly has declared to ETSI and/or ITU that each of the Combined Asserted Patents is essential to one or more 3G and/or 4G standards, and explicitly has undertaken to grant irrevocable licenses to each of the Combined Asserted Patents on FRAND terms and conditions.

42. As a result of its membership and participation in the SSOs, and its declarations and concomitant commitments, InterDigital was and is bound by their policies and procedures, including IPR Policies, and is obligated to license the Combined Asserted Patents on FRAND terms and conditions. InterDigital, however, has engaged in a course of conduct that has violated the very policies put in place by these SSOs to prevent the anticompetitive patent hold-up by which InterDigital now seeks to profit.

InterDigital Has Breached Its FRAND Obligations

43. Notwithstanding InterDigital's declarations of essentiality, and implicit and explicit FRAND commitments, InterDigital has failed and refused entirely to offer and grant a separate license, on FRAND or other terms and conditions, to Futurewei and Huawei Device USA as repeatedly requested by them.

44. InterDigital also has failed to offer and grant a license to Huawei with FRAND terms and conditions, despite repeated requests. In particular, the terms and conditions offered to Huawei are significantly less favorable than the terms and conditions of licenses that InterDigital has entered into with prior licensees, including licensees that are competitors of Huawei. At the same time, InterDigital has refused to accept FRAND license terms and conditions counteroffered by Huawei.

Seventh Affirmative Defense
(Express or Implied License)

45. InterDigital's claims are barred in whole or in part pursuant to actual licenses or under the doctrine of implied license. These licenses include, but are not limited to, express or implied licenses arising from InterDigital's participation in ETSI and 3GPP, its commitments to license the Asserted Patents on FRAND terms and conditions, its failure to offer and grant a license on FRAND terms and conditions, and Huawei's willingness to enter into a license on FRAND terms and conditions.

Eighth Affirmative Defense
(Unclean Hands)

46. The Asserted Patents are void and unenforceable by reason of the equitable doctrine of unclean hands based on (among other things) InterDigital's participation in ETSI and 3GPP, its commitments to license the Asserted Patents on FRAND terms and conditions, its efforts to or exclude Huawei, a willing licensee, from importing and selling products that allegedly practice the Asserted Patents, and its failure to offer FRAND terms and conditions for licensing the Asserted Patents.

Ninth Affirmative Defense
(Breach of Contract)

47. InterDigital breached its undertakings and obligations to ETSI and 3GPP, as well as to Huawei as a beneficiary of such undertakings or commitments, by seeking to enjoin or exclude Huawei, a willing licensee, from importing and selling products that allegedly practice the Asserted Patents, and by failing to offer and grant FRAND terms and conditions for licensing the Asserted Patents.

Tenth Affirmative Defense
(Equitable and Promissory Estoppel)

48. InterDigital's claims are barred in whole or in part based on equitable and/or promissory estoppel based on InterDigital's commitments to license the Asserted Patents on

FRAND terms and conditions, its efforts to enjoin or exclude Huawei, a willing licensee, from importing and selling products that allegedly practice the Asserted Patents, its failure to offer and grant FRAND terms and conditions for licensing the Asserted Patents, Huawei's reliance on InterDigital's obligations to adhere to its commitments, and Huawei's detriment because of InterDigital's failure to honor its obligations.

Eleventh Affirmative Defense
(Waiver)

49. InterDigital has waived any right to enforce the Asserted Patents by its commitments to license the Asserted Patents on FRAND terms and conditions, its efforts to enjoin or exclude Huawei, a willing licensee, from importing and selling products that allegedly practice the Asserted Patents, and its failure to offer and grant FRAND terms and conditions for licensing the Asserted Patents.

Twelfth Affirmative Defense
(Unenforceability)

50. On information and belief, as alleged below, the '151 patent, including all of the '151 patent claims asserted against Nokia, is unenforceable under the doctrine of inequitable conduct.

51. In particular, during prosecution of the '151 patent, at least two of the three named inventors, Marian Rudolf and Stephen Dick, deliberately withheld printed publications demonstrating that the subject matter of one or more claims of the '151 patent was invented earlier by other participants in the organization responsible for developing the LTE cellular standard. If those publications had been disclosed to the Patent and Trademark Office (PTO), as required by rules of PTO practice, one or more claims of the '151 patent would not have been allowed.

52. Marian Rudolf, Stephen Dick and Phillip J. Pietraski are listed as inventors on the ‘151 patent.

53. The ‘151 patent claims priority to a provisional application filed on Nov. 18, 2003.

54. InterDigital Technology Corporation is identified as the assignee on the face of the ‘151 patent.

55. Cellular standards, such as the LTE standard that InterDigital accuses of infringing the ‘151 patent, are developed by “Standards-Setting Organizations” (SSOs), made up of participants from companies, such as InterDigital and the Respondents in this investigation, that do business in the cellular space.

56. Cellular standards are complex, and govern many aspects of the operation of cellular devices and cellular network equipment. Each section of a standard is developed by a “working group” with expertise in the technical field for that section. For example, certain working groups have expertise in the efficient use of the radio frequency spectrum, and contribute to the portions of the standard that include the RF specification. Other working groups have expertise in other areas, such as the way in which data is encoded for accurate and efficient transmission over the air.

57. The working group responsible for developing the portion of the LTE standard accused of infringing the ‘151 patent is called TSG Radio Access Network Working Group 1 (“TSG-RAN Working Group 1”, hereinafter referred to as the “working group”) and the group met on multiple occasions in 2002 and 2003 to discuss proposals for the standard under development at the time (high-speed uplink packet access). Prior to each such discussion, the members of the working group drafted written submissions outlining their proposals. Those submissions were

distributed to all of the members of the working group, including representatives from InterDigital and at least two of the named inventors on the ‘151 patent, Marian Rudolf and Stephen Dick.

58. Two of the named inventors, Marian Rudolf and Stephen Dick, also attended many of the Working Group 1 meetings that occurred just before the ‘151 patent’s claimed priority date. Marian Rudolf attended Working Group 1 meetings held on October 8, 2002, November 5, 2002, January 7, 2003, February 18, 2003, May 19, 2003, August 25, 2003, October 6, 2003, and November 7, 2003. *See* Exhibits B-I. Stephen Dick attended Working Group 1 meetings on October 8, 2002, November 5, 2002, August 25, 2003, and November 7, 2003. *See* Exhibits B, C, G, I.

59. One of the issues addressed by Working Group 1 was how to efficiently assign network resources to multiple cellular devices, all of which need to send and receive data. *See* Exhibit J.

60. A cellular network shares the available transmission “bandwidth” (i.e., the network’s capacity for sending and receiving data) among multiple cellular devices. The allocation of bandwidth is under the control of the cellular network; when a cellular telephone wants to send and receive data such as emails or text messages, it must first ask the network for a share of the available bandwidth.

61. The network responds to the cellular telephone’s request for bandwidth by sending messages on a special “channel” that is dedicated to sending “control” messages to cellular telephones, sometimes referred as a control channel.

62. In many cases, the control channel is shared by multiple cellular devices. When multiple cellular devices share a control channel, each device must be able to receive and interpret messages that are addressed to it. The ‘151 patent explains how that was done for the downlink

control channel in the version of the standard (Release 5) that predates the one accused of infringement in this investigation. In that previous version, called "HSDPA" the downlink control channel sent control messages out to multiple cellular devices, and distinguished among those devices by using a user specific identification. '151 patent at 1:24–28, 1:54–55 (describing the prior art "HSDPA" method of identifying a specific "WTRU" (UE) in an HS-SCCH transmission, as part of "Release 5 (R5)" WCDMA systems). The user specific identification was used to mask a cyclic redundancy check (CRC) value. *Id*. This description of using a masked, device-specific CRC value is in the "Background" section of the specification of the '151 patent, and was known in the prior art. *Id.* at 1:24–2:12 (discussing alleged problems with prior art cellular systems, including the prior art HS-SCCH system employing the WTRU-specific CRC value.).

63. It is possible to employ a first control channel for sending a message to a cellular device indicating when it is allowed to download data, also known as "downlink," and a second control channel to instruct a cellular device when it may upload data, also known as "uplink."

64. In late 2002 and early 2003, the working group discussed using a single control channel for sending messages to cellular devices about the assignment of both uplink and downlink bandwidth. The single control channel under discussion during that time period would also be shared by multiple cellular devices. It was therefore suggested that, when the network sent out messages on the control channel, each cellular device would successfully interpret only those messages that are addressed to it.

65. In particular, in October, 2002, at a TSG-RAN Working Group 1 meeting attended by Marian Rudolf and Stephen Dick, Motorola submitted a proposal for how to use a single control channel to transmit control message for both the uplink and downlink directions. *See* Exhibit N. The Motorola Proposal is titled "Uplink enhancements for dedicated transport channels."

66. The Motorola Proposal suggests using the control channel previously used for downlink transmissions—a control channel called the "HS-SCCH"—to send messages related both to downlink transmissions (on the downlink channel called the "HS-DSCH") and to uplink transmissions (on an uplink channel called "EUDTC"). The relevant passage is as follows:

> "6. Control channel design to support EUDTC:
>
> One of the options for control channel design of EUDTC is to use the control channels for Rel-5 HS-DSCH to piggyback the control information required for EUDTC. This can be achieved by defining an additional frame format for HS-SCCH and HS-DPCCH. The second option is to define a new set of control channels to support EUDTC operation. Finally, the third option is to use 10 msec frame size. Further, the design of control channels when the UE is in soft-handoff should be addressed." Motorola Proposal at 2 (emphasis added).

67. As can be seen from the underlined portion, the Motorola Proposal suggests "piggyback[ing]" the uplink control information onto the existing downlink control channel, thus sharing the same control channel for messages pertaining to transmission in the uplink and downlink directions.

68. The Motorola Proposal also defines how to do so: by having a frame format for transmissions pertaining to the uplink direction that is different from the format used for transmissions pertaining to the downlink direction: "This can be achieved by defining an additional frame format for HS-SCCH and HS-DPCCH."

69. Finally, the Motorola Proposal states that it will "use the control channels for Rel-5 HS-DSCH" (i.e., the prior art "Release 5" version of the HSDPA standard) to distinguish between particular UEs receiving signals on the shard control channel. As discussed above in the context of the admitted prior art in the Background section of the '151 patent, the control channel used to

govern transmission on the "HS-DSCH" in Release 5 of HSPDA—the HS-SCCH—used a UE-specific CRC value.

70. In sum, the Motorola Proposal teaches using a single control channel for both uplink and downlink messages, distinguishing between uplink and downlink messages using different message "formats," and identifying a specific recipient for the message by using a device-specific CRC value as specified in the previous "Release 5" version of the standard.

71. Marian Rudolf and Stephen Dick attended the Working Group 1 meeting at which the Motorola Proposal was presented and received copies of the Motorola Proposal. Marian Rudolf and Stephen Dick were aware as of October 2002 that the scheme of using a single control channel for both the uplink and the downlink, and distinguishing between uplink control transmissions and downlink control transmissions through the use of different message formats, was already invented by others. *See* Exhibit N.

72. In January 2003, at a TSG-RAN Working Group 1 meeting attended by Marian Rudolf, Siemens submitted a proposal for how to use a single "control channel" to transmit messages to multiple cellular devices and grant individual cellular devices permission to transmit in the uplink and downlink directions. *See* Exhibit K.

73. The Siemens Proposal discloses using a single control channel to send both uplink and downlink control information. In particular, the Siemens Proposal suggests re-using the preexisting downlink control channel (the "HS-SCCH") to send messages pertaining both to the downlink channel (the "HS-DSCH") and to the uplink channel (the "EU-DCH"):

> 2. Re-use of HS-SCCH
>
> Re-using the existing HSDPA downlink control channel (HS-SCCH) is a means to alleviate the downlink code resource problem by providing trunking gain between EU-DCH and HS-DSCH users. This is achieved by reusing the downlink

> HS-SCCH also for downlink control information of EU-DCH (denoted as EU-SCCH in the sequel). Consequently, EU-SCCH uses also a 3-slot format and is time-aligned at Node B with HS-SCCH transmissions. This particular format for EU-DCH associated downlink control information allows the same shared control channel to be used for EU-DCH and HSDPA users in time multiplex.

Siemens Proposal at 1 (emphasis added).

74. Moreover, the Siemens Proposal points out that transmissions pertaining to the downlink direction can be distinguished from transmissions pertaining to the uplink direction by making use of pre-existing data structures used to store the "channelisation code-set field" which previously contained 7 bits of data representing the channelization code set. *Id.* By using a value for the channelization code set that was "unused" in the previous version of the standard, the Siemens Proposal allows the network to specify to a cellular device (referred to in the Siemens Proposal as "user equipment," or "UE") that the transmission relates to the uplink (EU-DCH) direction: "As shown in Fig. 1, the HS-SCCH part 1 provides 8 unused codewords within the channelisation code-set field (denoted as "redundant area" in Fig. 1, [1]), which could be used for EU-DCH downlink signalling." *Id.* Figure 1 is a table showing the unused codes, in the "Redundant area":

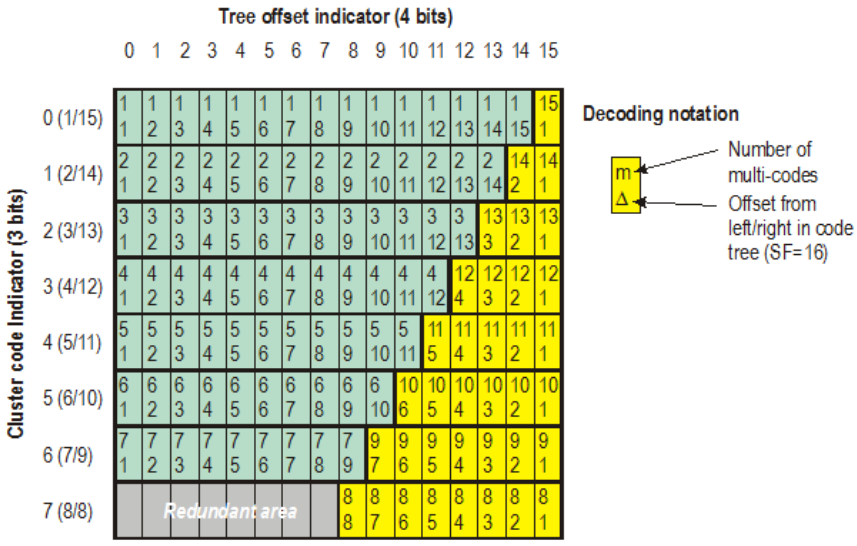


Fig 1: Reuse of the redundant area of HS-SCCH part 1 for downlink signalling of EU-DCH

75. Finally, the Siemens Proposal suggests using the pre-existing HS-SCCH coding format to specify the particular user equipment ("UE") that is intended to receive the transmission. "A further simplification of the UE implementation is possible if exactly the coding format of HS-SCCH part 1 is re-used. . . . A major benefit of the re-use of HS-SCCH channel and coding format is that the detection based on the implicit UE-ID and decoding of part 1 is identical for HSDPA and EU-DCH data transmission and receiver implementation is notably simplified." Siemens Proposal at 1–2. As discussed above, as admitted in the Background section of the '151 patent, the existing coding structure for HS-SCCH used a UE-specific CRC value that is generated from Part 1 and Part 2 of the HS-SCCH.

76. In sum, the Siemens Proposal teaches using a single control channel for both uplink and downlink messages, distinguishing between uplink and downlink messages using different message "formats," and identifying a specific recipient for the message by using the preexisting coding structure of HS-SCCH, as specified in the previous HSDPA version of the standard.

77. Marian Rudolf attended the Working Group 1 meeting at which the Siemens Proposal was presented and received copies of the Siemens Proposal. Marian Rudolf was aware as

of January 2003 that the scheme of using a single control channel for both the uplink and the downlink, by distinguishing between uplink control transmissions and downlink control transmissions through the use of the "unused" codewords in the previous version of the standard, was already invented by others. *See* Exhibit D.

78. InterDigital filed a provisional application with the PTO on November 18, 2003. *See* Exhibit L [hereinafter the "Provisional Application"]. The Provisional Application is titled "Novel Resource Assignment Channel Configuration for Enhanced Uplink Operation." *Id.* at 7.

79. Like the Motorola Proposal and the Siemens Proposal, the Provisional Application describes a way to use a single shared control channel to send transmissions pertaining to both the downlink and uplink directions: "The foregoing and other shortcomings of the prior art are resolved by providing a high speed shared control channel (HS-SCCH) and an uplink (UL) resource assignment channel· in a shared downlink (DL) radio resource space, and by distinguishing received high speed shared control channel (HS-SCCH) transmissions from uplink (UL) resource assignment channel transmissions." Provisional Application ¶ 0018 (emphasis added here and in all cases below).

80. One of the preferred embodiments of the Provisional Application is identical in all relevant respects to the shared control channel described in the Siemens Proposal, and several embodiments use the approach to distinguishing between the uplink and downlink directions discussed in the Motorola Proposal.

81. Both the Motorola Proposal and the Provisional Application describe using a single control channel that employs conventional HS-SCCH transmissions for the downlink (i.e., the same transmissions used in the prior art Release 5 version of the standard) and UL Resource Assignment transmissions for the uplink. Likewise, both the Siemens Proposal and the

Provisional Application describe using a single control channel that employs conventional HS-SCCH transmissions for the downlink (i.e., the same transmissions used in the prior art version of the HSDPA standard) and UL Resource Assignment transmissions for the uplink (emphasis added in all cases).

Provisional Application	**Motorola Proposal**	**Siemens Proposal**
"The foregoing and other shortcomings of the prior art are resolved by providing a high speed shared control channel (HS-SCCH) and an uplink (UL) resource assignment channel in a shared downlink (DL) radio resource space, and by distinguishing received high speed shared control channel (HS-SCCH) transmissions from uplink (UL) resource assignment channel transmissions." ¶ 0018.	"One of the options for control channel design of EUDTC is to use the control channels for Rel-5 HS-DSCH to piggyback the control information required for EUDTC. This can be achieved by defining an additional frame format for HS-SCCH and HS-DPCCH." Motorola Proposal at 2.	"Re-using the existing HSDPA downlink control channel (HS-SCCH) is a means to alleviate the downlink code resource problem by providing trunking gain between EU-DCH and HS-DSCH users. This is achieved by reusing the downlink HS-SCCH also for downlink control information of EU-DCH (denoted as EU-SCCH in the sequel)." Siemens Proposal at 1.

82. In several embodiments of the Provisional Application, and in the Motorola Proposal, the UE can, in the phrasing used by the Provisional Application, "distinguish" between transmissions related to the downlink and transmissions related to the uplink by looking at the format of the frame transmitted on the shared control channel. In at least the first, second, and third disclosed embodiments of the Provisional Application, the direction for the control signal is specified by the format of the frame.

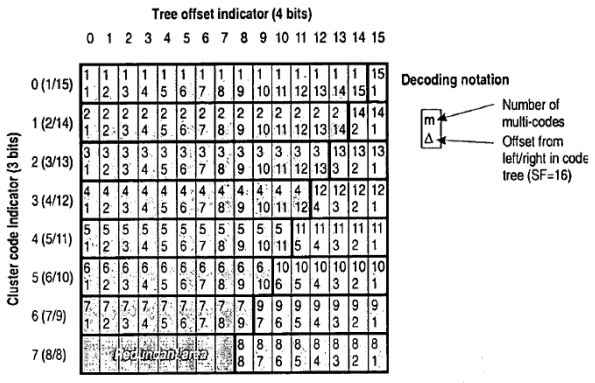
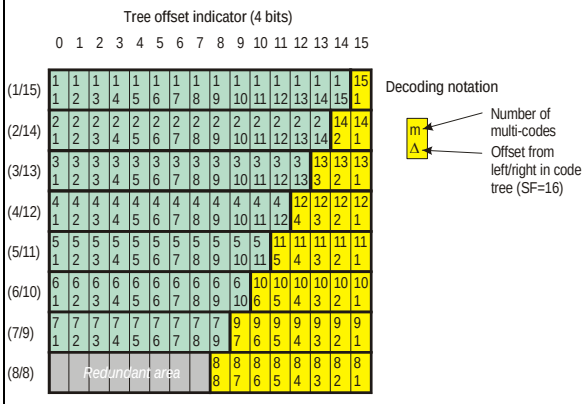
Provisional Application	**Motorola Proposal**
"Pursuant to the techniques of the present invention, any of several methods may be employed to distinguish HS-SCCH transmissions from DL Resource Assignment channel transmissions. These methods include:	"This can be achieved by defining an additional frame format for HS-SCCH and HS-DPCCH." Motorola Proposal at 2.

(a) channel indication by means of selecting one or more 'impossible' combinations in channelization code set mapping, (b) inversion of DE-specific cyclic redundancy check (CRC), (c) utilizing different DE-specific masking sequences . . ." Provisional Application ¶ 0020; *see generally* ¶¶ 0033–0035 (describing "Method 1," "Method 2," and "Method 3" for distinguishing between the uplink and downlink channels).	

83. Likewise, in the first embodiment of the Provisional Application, and in the Siemens Proposal, the UE can distinguish between transmissions related to the downlink and transmissions related to the uplink by using special values in an unused field in the previous version of the HSDPA standard. Both the Provisional Application and the Siemens Proposal explain how this distinguishing can take place: by looking to see whether one of the fields of the transmission—the "channelisation code-set" field—is one of eight codewords that are "unused" or "impossible" in the prior art implementation:

Provisional Application	**Siemens Proposal**
"Pursuant to the techniques of the present invention, any of several methods may be employed to distinguish HS-SCCH transmissions from DL Resource Assignment channel transmissions. These methods include: (a) channel indication by means of selecting one or more 'impossible' combinations in channelization code set mapping . . ." Provisional Application ¶ 0020; *see generally* ¶ 0033 (describing "Method 1" for distinguishing between the uplink and downlink channels, using "One or more 'Impossible' Combinations in the Channelization Code Set Mapping").	"A further simplification of the UE implementation is possible if exactly the coding format of HS-SCCH part 1 is re-used. This is possible if the signalling payload is four bits or less. As shown in Fig. 1, the HS-SCCH part 1 provides 8 unused codewords within the channelisation code-set field (denoted as 'redundant area' in Fig. 1, [1]), which could be used for EU-DCH downlink signalling." Siemens Proposal at 1.

84. Indeed, the figure used to depict the "impossible combinations" in the Provisional Application is copied and pasted from the figure used in the Siemens Proposal to depict the "8 unused codewords":

Provisional Application	Siemens Proposal
 FIG. 2	 Fig. 1

85. Finally, in both the Motoroal Proposal and the Siemens proposal, the shared downlink channel relies on the same prior art method for confirming which UE a transmission is directed to that is used in the Provisional Application: using the user-specific identification in the same manner it was used in the preexisting HS-SCCH structure.

Provisional Application	Motorola Proposal	Siemens Proposal
"Confirmation that a demodulated transmission is intended for the UE is obtained using a UE-specific CRC." ¶ 0025. "The R5 HS-SCCH is sent . . . along with a UE-specific cyclic redundancy check (CRC) (see 3GPP TS25.212)." ¶ 0008 (discussing the	"One of the options for control channel design of EUDTC is to use the control channels for Rel-5 HS-DSCH to piggyback the control information required for EUDTC. This can be achieved by defining an additional frame format for HS-SCCH and HS-DPCCH." Motorola Proposal at 2.	"A further simplification of the UE implementation is possible if exactly the coding format of HS-SCCH part 1 is re-used." "A major benefit of the re-use of HS-SCCH channel and coding format is that the detection based on the implicit UE-ID and decoding of part 1 is identical for HSDPA and

HS-SCCH in the prior art HSDPA system).		EU-DCH data transmission and receiver implementation is notably simplified." Siemens Proposal at 1–2.

86. Moreover, both the Provisional Application and the Siemens Proposal argue that transmitting uplink control messages on the same channel already used for downlink control messages has performance and efficiency benefits—namely, the UE can have reduced complexity and better performance because it only needs to monitor a single control channel.

Provisional Application	**Siemens Proposal**
"In a straightforward extension of existing R5 mechanisms, UL Resource Assignment Channel's for FDD Enhanced UL could be introduced 'on top' of existing HS-SCCH's for HSDPA. In other words, a separate set of SF=128 DL channels are configured to contain one or more UL Resource Assignment Channels. With this approach, in a typical HSDPA operation scenario, a UE would then be required to monitor one or several UL Resource Assignment Channels in addition to the up to 4 HS-SCCHs it must already monitor." ¶ 0014. "Relative to the prior art approaches described hereinbefore, a high speed shared control channel (HS-SCCH) and an uplink (UL) resource assignment channel that occupy a shared downlink (DL) radio resource space reduces UE complexity increases UE battery efficiency, and permits enhanced DL spreading code usage." ¶ 0019.	"Re-using the existing HSDPA downlink control channel (HS-SCCH) is a means to alleviate the downlink code resource problem by providing trunking gain between EU-DCH and HS-DSCH users. . . . Additionally it decreases UE complexity, since less control channels need to be monitored in cases where HS-DSCH and EU-DCH are used concurrently." Siemens Proposal at 1.

87. Thus the Provisional Application, like the Motorola Proposal and the Siemens Proposal, describes using a single control channel for both uplink and downlink messages, distinguishing between uplink and downlink messages using different message formats (including,

as in the Siemens Proposal, different values for the "channelization code set" field), and identifying a specific recipient for the message by using the pre-existing HS-SCCH coding structure, which included a device-specific CRC value. And the Provisional Application and the Siemens Proposal cite precisely the same benefits from doing so.

88. The Provisional Application also includes claims. Claim 1 purports to cover the process already disclosed in the Motorola Proposal and the Siemens Proposal:

> 1. A method for communicating with a user equipment (UE) over a wireless link comprised of a downlink (DL) and an uplink (UL), the method comprising the steps of:
>
> (a) sharing at least a portion of the DL so as to provide a high speed shared control channel (HS-SCCH) and an UL resource assignment channel, and
>
> (b) distinguishing received high speed shared control channel (HS-SCCH) transmissions from uplink (UL) resource assignment channel transmissions.

89. This claim recites the same basic three elements already discussed: a control channel for both "HS-SCCH" and "uplink (UL)" control messages; "distinguishing" transmissions related to the HS-SCCH from transmissions related to the uplink; and "sharing" the channel among multiple UEs. This claimed process is identical to what is disclosed in the Motorola Proposal and the Siemens Proposal.

90. InterDigital filed the nonprovisional application, which ultimately issued as the '151 patent, on July 29, 2004. *See* Exhibit M. Both the Motorola Proposal and the Siemens Proposal describe preferred embodiments of the '151 patent. And like the Provisional Application, the '151 patent includes material taken directly from the Siemens Proposal.

91. In particular, both the '151 patent and the Motorola Proposal describe using a single control channel that employs conventional HS-SCCH transmissions for the downlink (i.e.,

the same transmissions used in the prior art Release 5 version of the standard) and UL Resource Assignment transmissions for the uplink. Likewise, both the '151 patent and the Siemens Proposal describe using a single control channel that employs conventional HS-SCCH transmissions for the downlink (i.e., the same transmissions used in the prior art version of the HSDPA standard) and UL Resource Assignment transmissions for the uplink.

'151 patent	**Motorola Proposal**	**Siemens Proposal**
"The WTRU communicates with the Node-B via a common control channel, the UL channel and the DL channel. The WTRU receives a message from the Node-B via the common control channel. The message includes an indication of whether the message is intended for assigning radio resources to the UL charmel or the DL channel." 2:20–25. "The Node-B 104 is configured to support an HSDPA and EU operation. Therefore, each Node-B 104 dynamically allocates radio resources for DL and UL transmissions to and from the WTRU 106 through an HS-DSCH and an EU channel, respectively. The radio resources assignment information for both the HS-DSCH and the EU is transmitted through the common control channel 112." 3:33–39. "High speed downlink packet access (HSDPA) has been developed to increase	"One of the options for control channel design of EUDTC is to use the control channels for Rel-5 HS-DSCH to <u>piggyback</u> the control information required for EUDTC. This can be achieved by defining an additional frame format for <u>HS-SCCH</u> and HS-DPCCH." Motorola Proposal at 2.	"Re-using the existing HSDPA downlink control channel (HS-SCCH) is a means to alleviate the downlink code resource problem by providing trunking gain between EU-DCH and HS-DSCH users. <u>This is achieved by reusing the downlink HS-SCCH also for downlink control information of EU-DCH (denoted as EU-SCCH in the sequel)</u>." Siemens Proposal at 1.

downlink (DL) efficiency and throughput in universal mobile telecommunication system (UMTS) Release 5 (R5) wideband code division multiple access (W-CD MA) systems. . . . The signaling channel, a high speed shared control channel (HS-SCCH), conveys radio resource allocation information to a plurality of wireless transmit/receive units (WTRUs)." 1:33–36.		

92. In several embodiments of the '151 patent, as in the Motorola Proposal, the UE can distinguish between transmissions related to the downlink and transmissions related to the uplink by looking at the format of the frame transmitted on the shared control channel. In at least the first, second, and third disclosed embodiments of the '151 patent, the direction for the control signal is specified by the format of the frame.

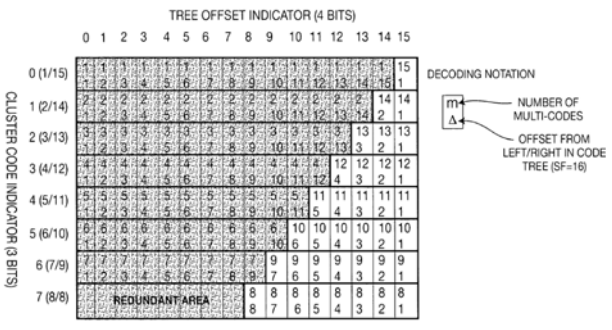
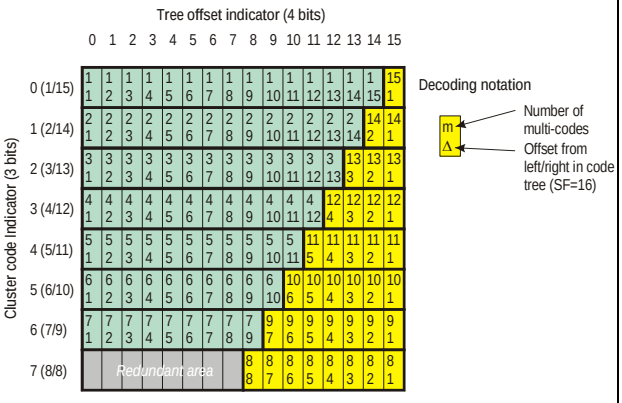
'151 patent	**Motorola Proposal**
"In accordance with a first embodiment of the present invention, an indication that a particular radio resource is assigned for a UL transmission is provided by means of one or more of the impossible combinations in the channelization code set mapping in a current HSDPA." 3:51–55. "In accordance with the second embodiment of the present invention, this WTRU-specific CRC is modified in a unique and deterministic way to indicate that the demodulated transmission is for UL transmission, rather than DL transmission." 4:13–16. "In accordance with a third embodiment of the present invention, an indication that a particular radio resource is assigned for an EU is provided	"This can be achieved by defining an additional frame format for HS-SCCH and HS-DPCCH." Motorola Proposal at 2.

by means of a WTRU -specific masking sequence." 4:28–31.	

93. Also, as in the Siemens Proposal, the '151 patent describes distinguishing between transmissions related to the downlink and transmissions related to the uplink, using the channelization code-set field.

'151 patent	Siemens Proposal
"In accordance with a first embodiment of the present invention, an indication that a particular radio resource is assigned for a UL transmission is provided by means of one or more of the impossible combinations in the channelization code set mapping in a current HSDPA. FIG. 2 is a look-up table for channelization code set mapping currently used in the HSDPA." 3:51–57.	"A further simplification of the UE implementation is possible if exactly the coding format of HS-SCCH part 1 is re-used. This is possible if the signalling payload is four bits or less. As shown in Fig. 1, the HS-SCCH part 1 provides 8 unused codewords within the channelisation code-set field (denoted as 'redundant area' in Fig. 1, [1]), which could be used for EU-DCH downlink signalling." Siemens Proposal at 1.

94. Figure 2 from the '151 patent is carried over from Figure 2 of the Provisional Application, which in turn is taken from Figure 1 of the Siemens Proposal.

'151 patent	Siemens Proposal
 FIG. 2	 Fig. 1

95. Finally, in both the Motorola Proposal and the Siemens proposal, the shared downlink channel relies on the same prior art method for determining which UE a transmission is directed to that is used in the '151 patent: looking at the preexisting structure of the HS-SCCH and specifically the use of user specific identification (UE-ID), which was used in the preexisting structure to mask the CRC.

'151 patent	**Motorola Proposal**	**Siemens Proposal**
"In accordance with a second embodiment of the present invention, an indication that a particular radio resource is assigned for UL transmission is provided by means of a WTRU-specific CRC. Under current HSDPA specifications, a WTRU-specific CRC is contained in an HS-SCCH field 2. A 16-bit CRC is computed from the information to be transmitted, and the computed CRC is masked with a unique 16-bit WTRU identity (ID). The masked CRC is transmitted to a WTRU 106 as a WTRU-specific CRC." 4:4–12.	"One of the options for control channel design of EUDTC is to use the control channels for Rel-5 HS-DSCH to piggyback the control information required for EUDTC. This can be achieved by defining an additional frame format for HS-SCCH and HS-DPCCH." Motorola Proposal at 2.	"A further simplification of the UE implementation is possible if exactly the coding format of HS-SCCH part 1 is re-used." "A major benefit of the re-use of HS-SCCH channel and coding format is that the detection based on the implicit UE-ID and decoding of part 1 is identical for HSDPA and EU-DCH data transmission and receiver implementation is notably simplified." Siemens Proposal at 1–2.

96. As with the Provisional Application, the '151 patent argues that transmitting uplink control messages on the same channel already used for downlink control messages has the performance and efficiency benefits discussed in the Siemens Proposal—namely, the UE can have reduced complexity and better performance because it only needs to monitor a single control channel.

'151 patent	**Siemens Proposal**

"Thus, it is possible to introduce a separate set of SF=128 DL channels as UL resource assignment channels. With this approach, a WTRU would be required to monitor one or more UL resource assignment channels in addition to the HS-SCCHs for an HSDPA operation. Although this approach is conceptually simple, there are many disadvantages with this scheme, such as WTRU complexity, WTRU battery efficiency, and DL spreading code usage." 2:3–9 (describing disadvantages of using two separate control channels, which are alleged to be overcome by the claimed invention).	"Re-using the existing HSDPA downlink control channel (HS-SCCH) is a means to alleviate the downlink code resource problem by providing trunking gain between EU-DCH and HS-DSCH users. . . . Additionally it decreases UE complexity, since less control channels need to be monitored in cases where HS-DSCH and EU-DCH are used concurrently." Siemens Proposal at 1.

97. Moreover, at least asserted independent claims 1 and 16 purport to cover the process already disclosed in the Motorola Proposal and in the Siemens Proposal.

98. The Motorola Proposal and the Siemens Proposal disclose a control channel for both downlink and uplink channel assignment information:

Claims	**Motorola Proposal**	**Siemens Proposal**
1. A method for utilizing channel assignment information for an uplink shared channel or a downlink shared channel, the method comprising: a wireless transmit/receive unit (WTRU) receiving downlink control information including downlink or uplink channel assignment information via a same physical downlink control channel, both downlink channel assignment information and uplink channel assignment information being received via the same physical downlink control channel;	"One of the options for control channel design of EUDTC is to use the control channels for Rel-5 HS-DSCH to piggyback the control information required for EUDTC. This can be achieved by defining an additional frame format for HS-SCCH and HS-DPCCH." Motorola Proposal at 2.	"Re-using the existing HSDPA downlink control channel (HS-SCCH) is a means to alleviate the downlink code resource problem by providing trunking gain between EU-DCH and HS-DSCH users. This is achieved by reusing the downlink HS-SCCH also for downlink control information of EU-DCH (denoted as EU-SCCH in the sequel)." Siemens Proposal at 1.

Claims	Motorola Proposal	Siemens Proposal
16. A wireless transmit/receive unit (WTRU) for utilizing channel assignment information for an uplink shared channel or a downlink shared channel, the WTRU comprising: a receiver configured to receive downlink control information including downlink or uplink channel assignment information via a same physical downlink control channel, both downlink channel assignment information and uplink channel assignment information being received via the same physical downlink control channel;	"One of the options for control channel design of EUDTC is to use the control channels for Rel-5 HS-DSCH to piggyback the control information required for EUDTC. This can be achieved by defining an additional frame format for HS-SCCH and HS-DPCCH." Motorola Proposal at 2.	"Re-using the existing HSDPA downlink control channel (HS-SCCH) is a means to alleviate the downlink code resource problem by providing trunking gain between EU-DCH and HS-DSCH users. This is achieved by reusing the downlink HS-SCCH also for downlink control information of EU-DCH (denoted as EU-SCCH in the sequel)." Siemens Proposal at 1.

99. The Motorola Proposal and the Siemens Proposal disclose "determining" whether the downlink control information is intended for the UE:

Claims	Motorola Proposal	Siemens Proposal
1. …the WTRU determining whether the downlink control information is intended for the WTRU based on WTRU identity (ID)-masked cyclic redundancy check (CRC) parity bits…	"One of the options for control channel design of EUDTC is to use the control channels for Rel-5 HS-DSCH to piggyback the control information required for EUDTC. This can be achieved by defining an additional frame format for HS-SCCH and HS-DPCCH." Motorola Proposal at 2; *see* '151 patent at 1:24–2:12 (indicating that the "HS-SCCH" uses a CRC value specific to a WTRU to distinguish transmissions to	"A further simplification of the UE implementation is possible if exactly the coding format of HS-SCCH part 1 is re-used. . . . A major benefit of the re-use of HS-SCCH channel and coding format is that the detection based on the implicit UE-ID and decoding of part 1 is identical for HSDPA and EU-DCH data transmission and receiver implementation is notably simplified." Siemens Proposal at 1–2; *see* '151 patent at 1:24–2:12 (indicating

	that WTRU).	that "HSDPA" uses a CRC value specific to a WTRU to distinguish transmissions to that WTRU).

Claims	Motorola Proposal	Siemens Proposal
16. … a controller configured to determine whether the downlink control information is intended for the WTRU based on WTRU identity (ID)-masked cyclic redundancy check (CRC) parity bits…	"One of the options for control channel design of EUDTC is to use the control channels for Rel-5 HS-DSCH to piggyback the control information required for EUDTC. This can be achieved by defining an additional frame format for HS-SCCH and HS-DPCCH." Motorola Proposal at 2; *see* '151 patent at 1:24–2:12 (indicating that the "HS-SCCH" uses a CRC value specific to a WTRU to distinguish transmissions to that WTRU).	"A further simplification of the UE implementation is possible if exactly the coding format of HS-SCCH part 1 is re-used. . . . A major benefit of the re-use of HS-SCCH channel and coding format is that the detection based on the implicit UE-ID and decoding of part 1 is identical for HSDPA and EU-DCH data transmission and receiver implementation is notably simplified." Siemens Proposal at 1–2; *see* at 1:24–2:12 (indicating that "HSDPA" uses a CRC value specific to a WTRU to distinguish transmissions to that WTRU).

100. As discussed above, it was known in the admitted prior art (described in the '151 patent) that the existing "HSDPA" specifications use a WTRU-specific CRC in the "HS-SCCH" channel to identify transmissions intended for a particular WTRU.

Claims	Meaning of "HSDPA" to a Person of Ordinary Skill in the Art
1. …the WTRU determining whether the downlink control information is intended for the WTRU based on WTRU identity (ID)-masked cyclic redundancy check (CRC) parity bits…	"Under current HSDPA specifications a WTRU-specific CRC is contained in an HS-SCCH field 2." '151 patent 4:7–8; *id.* 1:49–55 (indicating that the "HS-SCCH" uses a CRC value specific to a WTRU to distinguish transmissions to that WTRU); *id.* 1:24–2:12 (indicating that "HSDPA" uses a

	CRC value specific to a WTRU to distinguish transmissions to that WTRU).

Claims	Meaning of "HSDPA" to a Person of Ordinary Skill in the Art
16. … a controller configured to determine whether the downlink control information is intended for the WTRU based on WTRU identity (ID)-masked cyclic redundancy check (CRC) parity bits…	"Under current HSDPA specifications a WTRU-specific CRC is contained in an HS-SCCH field 2." '151 patent 4:7–8; *id.* 1:49–55 (indicating that the "HS-SCCH" uses a CRC value specific to a WTRU to distinguish transmissions to that WTRU); *id.* 1:24–2:12 (indicating that "HSDPA" uses a CRC value specific to a WTRU to distinguish transmissions to that WTRU).

101. The Motorola Proposal and the Siemens Proposal disclose "determining" whether the channel assignment information is for uplink or downlink and utilizing that information:

Claims	Motorola Proposal	Siemens Proposal
1. … if so determining whether the channel assignment information is for assigning radio resources for the uplink shared channel or the downlink shared channel; and the WTRU utilizing the radio resources for the uplink shared channel or the downlink shared channel.	"One of the options for control channel design of EUDTC is to use the control channels for Rel-5 HS-DSCH to piggyback the control information required for EUDTC. This can be achieved by defining an additional frame format for HS-SCCH and HS-DPCCH." Motorola Proposal at 2.	"A further simplification of the UE implementation is possible if exactly the coding format of HS-SCCH part 1 is re-used. This is possible if the signalling payload is four bits or less. As shown in Fig. 1, the HS-SCCH part 1 provides 8 unused codewords within the channelisation code-set field (denoted as 'redundant area' in Fig. 1, [1]), which could be used for EU-DCH downlink signalling." Siemens Proposal at 1.

Claims	Motorola Proposal	Siemens Proposal
16. … determine whether the channel assignment	"One of the options for control channel design of EUDTC is to	"A further simplification of the UE implementation is possible

information is for assigning radio resources for the uplink shared channel or the downlink shared channel, and utilizing the radio resources for the uplink shared channel or the downlink shared channel.	use the control channels for Rel-5 HS-DSCH to piggyback the control information required for EUDTC. This can be achieved by defining an additional frame format for HS-SCCH and HS-DPCCH." Motorola Proposal at 2.	if exactly the coding format of HS-SCCH part 1 is re-used. This is possible if the signalling payload is four bits or less. As shown in Fig. 1, the HS-SCCH part 1 provides 8 unused codewords within the channelisation code-set field (denoted as 'redundant area' in Fig. 1, [1]), which could be used for EU-DCH downlink signalling." Siemens Proposal at 1.

102. On information and belief, but for the applicant's deliberate decision to withhold the Motorola Proposal and the Siemens Proposal from the '151 patent examiner, the PTO would not have allowed at least asserted claims 1 and 16 of the '151 patent. The Motorola Proposal and the Siemens Proposal, by themselves or in combination with the admitted prior art, disclose each and every element of these claims—indeed, the Siemens Proposal teaches the specific method of distinguishing between uplink and downlink used in an embodiment of the '151 patent, and describes that method using precisely the same figure.

103. On information and belief, the decision to withhold the Motorola Proposal and the Siemens Proposal was deliberate, and made with fraudulent intent. At least inventors Marian Rudolf and Stephen Dick were specifically aware of the Motorola Proposal, as they attended the Working Group 1 meetings at which the Motorola Proposal was presented. At least inventor Marian Rudolf was specifically aware of the Siemens Proposal, as he attended the Working Group 1 meetings at which the Siemens Proposal was presented. In addition, 3GPP working group documents for any given meeting are distributed prior to the meeting to the appropriate working group or to those persons registered as regular participants—including other named inventors on the '151 patent. Given that multiple inventors were actively involved with TSG-RAN Working

Group 1 and regularly attended Working Group 1 meetings, they were clearly aware of the Siemens Proposal and the Motorola Proposal.

104. The inventors' awareness of the Motorola Proposal is also evident from the inclusion of a related Motorola submission in the cited prior art for the '151 patent. In particular, the cited prior art for the '151 patent includes a publication titled "3GPP TSG RANWG 1 Tdoc R1-02-1350, Motorola, 'Design Considerations for Enhanced Uplink Dedicated Channel,' Shanghai, China, Nov. 2002." '151 patent at Page 2. The 1350 proposal cites the Motorola Proposal discussed above. Exhibit N at 1, 5.

105. The inventors' awareness of the Siemens Proposal is also evident from the Provisional Application and the specification of the '151 patent themselves, which (as already discussed) take the idea of using the "unused" values of the channelization code-set field and the figure used to illustrate that idea directly from the Siemens Proposal.

106. On information and belief, knowing that disclosing the Motorola Proposal and /or the Siemens Proposal would prohibit obtaining a patent, at least inventor Rudolf and inventor Dick made the conscious choice not to disclose the prior art to the PTO. The inventors disclosed several working group documents to the Examiner from other meetings attended by the inventors and occurring around the same time as the Motorola Proposal and the Siemens Proposal—including the related Motorola 1350 proposal but at least Marian Rudolf and Stephen Dick chose not to disclose the Motorola Proposal and the Siemens Proposal to the PTO.

107. For example, both Marian Ruldolf and Stephen Dick attended the Working Group 1 meeting in Shanghai, China, held November 2002, and disclosed the following working documents associated with this meeting to the PTO: (1) Tdoc R1-02-1277, Nokia, "Two Threshold Node B Packet Scheduling," Shanghai, China, Nov. 2002; (2) Tdoc R1-02-1350, Motorola,

"Design Considerations for Enhanced Uplink Dedicated Channel," Shanghai, China, Nov. 2002; and (3) Tdoc R1-02-1277, Nokia, "Two Threshold Node B Packet Scheduling," Shanghai, China, Nov. 2002. *See* Exhibit C. However, Marian Rudolf and Stephen Dick attended the Working Group 1 meeting preceding the Shanghai meeting, held October 2002 in Espoo Finland, and chose not to disclose the highly relevant Motorola Proposal. And Marian Rudolf attended the Working Group 1 meeting following the Shanghai meeting, held January 2003 in San Diego, California, and chose not to disclose the highly relevant Siemens Proposal. *See* Exhibit D.

108. The deliberate choice by at least Marian Rudolf to use material taken from the Siemens Proposal in the first described embodiment of the ‘151 patent, and the choice to disclose to the USPTO other Working Group materials while withholding the Siemens Proposal, demonstrate fraudulent intent. The deliberate choice of at least Marian Rudolf and Stephen Dick to disclose certain Working Group submissions, including the Motorola 1350 proposal, while withholding the directly relevant Motorola Proposal, demonstrates fraudulent intent. The pattern of withholding multiple prior art references that disclose the use of a single control channel and the other requirements of at least claims 1 and 16 of the ‘151 patent further demonstrates fraudulent intent. On information and belief, the inventors, including at least Marian Rudolf and Stephen Dick, withheld the Motorola Proposal and the Siemens Proposal with the intent of hiding from the PTO that the alleged inventions of at least claims 1 and 16 of the ‘151 patent were not invented by the named inventors, but rather were taken from the prior work of others. As discussed above, but for the inventors’ failure to disclose the Motorola Proposal and the Siemens Proposal, at least claims 1 and 16 of the ‘151 patent would not have issued.

Dated: February 21, 2013 Respectfully submitted,

/s/ Winslow B. Taub

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VERIFICATION TO THE RESPONSE OF HUAWEI RESPONDENTS TO THE COMPLAINT UNDER SECTION 337 OF THE TARIFF ACT OF 1930, AS AMENDED, AND NOTICE OF INVESTIGATION

I, Jingliang Wang, for and on behalf of Respondent Huawei Technologies Co., Ltd., Huawei Device USA, Inc., and Futurewei Technologies, Inc. (collectively, the "Huawei Respondents" or "Huawei"), hereby certify that:

I am Senior Legal Counsel for Huawei and am duly authorized to execute this verification on behalf of Huawei.

I have read Huawei's Response to the Complaint Under Section 337 of the Tariff Act of 1930, as Amended, and Notice of Investigation, including Confidential Exhibit A thereto ("Response"), and I am familiar with the allegations and statements contained therein.

To the best of my knowledge, information and belief formed after a reasonable inquiry under the circumstances, the allegations and statements made in the Response are true and well-grounded in fact and are warranted by existing law or a good faith argument for the extension, modification or reversal of existing law.

Although the truth of all said Responses may not be known to me personally, they are based in whole or in part on information received from others or derived from corporate records.

The Response is not being presented for any improper purpose, such as to harass or cause unnecessary delay or to needlessly increase the cost of the investigation.

I make this Verification under penalty of perjury this 21 day of February , 2013.

Name: Jingliang Wang
Position: Senior Legal Counsel
Huawei Technologies Co., Ltd.
Huawei Device USA, Inc., and Futurewei Technologies, Inc.

CERTIFICATE OF SERVICE

I, Danute Abrishami, certify that on February 21, 2013, copies of the foregoing **HUAWEI RESPONDENTS RESPONSE TO COMPLAINT UNDER SECTION 337 OF THE TARIFF ACT OF 1930, AS AMENDED, AND NOTICE OF INVESTIGATION** were delivered, pursuant to Commission regulations, to the following interested parties as indicated:

The Honorable Lisa Barton Acting Secretary to the Commission U.S. INTERNATIONAL TRADE COMMISSION 500 E Street, S.W. Washington, DC 20436	*Via* EDIS and Hand Delivery
The Honorable Robert K. Rogers, Jr. Administrative Law Judge U.S. INTERNATIONAL TRADE COMMISSION 500 E Street, S.W. Washington, DC 20436	*Via* Hand Delivery (2 copies) *Via* E-mail: David.Foley@usitc.gov
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