IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

CYWEE GROUP LTD.,	CASE NO. 2:17-cv-00495-RWS-RSP
Plaintiff,	
v.	JURY TRIAL DEMANDED
HUAWEI DEVICE CO. LTD., HUAWEI DEVICE (DONGGUAN) CO. LTD., AND HUAWEI DEVICE USA, INC.,	
Defendants.	

THIRD AMENDED COMPLAINT FOR PATENT INFRINGEMENT

1.   Plaintiff CyWee Group Ltd. ("Plaintiff" or "CyWee"), by and through

its undersigned counsel, files this Third Amended Complaint against Defendants

Huawei Device USA, Inc., Huawei Device Co Ltd., Huawei Device (Dongguan) Co.

Ltd., and Huawei Device USA, Inc. as follows:

THE PARTIES

2.   CyWee is a corporation existing under the laws of the British Virgin

Islands with a principal place of business at 3F, No.28, Lane 128, Jing Ye 1st Road,

Taipei, Taiwan 10462.

3.   CyWee is a world-leading technology company that focuses on

building products and providing services for consumers and businesses. CyWee has

one of the most significant patent portfolios in the industry and is a market leader in

its core development areas of motion processing, wireless high definition video delivery, and facial tracking technology.

4.   Defendant Huawei Device Co Ltd. ("Huawei Device") is a Chinese company with a principal place of business at 8 Shitou Road, North Area, Shenzhen, 518129, China. Huawei Device is involved in the design, manufacture, and sale of mobile devices, including smartphones that operate on cellular networks. Huawei Device's subsidiaries in the United States include Huawei Device USA, Inc.

5.   Defendant Huawei Device (Dongguan) Co. Ltd. ("Huawei Dongguan") is a Chinese company with a principal place of business at Building A, Cloud Park, Huacheng Road, Bantian, Longgang District, Shenzhen 518054, China. Huawei Dongguan is involved in the design, manufacture, and sale of mobile devices, including smartphones that operate on cellular networks.

6.   Defendant Huawei Device USA, Inc. ("Huawei USA") is a Texas corporation with a principal place of business located at 5700 Tennyson Parkway, Suite 600, Plano, Texas 75024. Huawei USA may be served through its registered agent, CT Corporation System located at 1201 Peachtree Street N.W., Suite 1240, Atlanta, GA 30361. Huawei USA distributes, markets, and sells mobile devices, including smartphones that operate on cellular networks in the United States.

7.   Defendants Huawei Device, Huaweo Dongguan, and Huawei USA are collectively referred to as "Defendants" or "Huawei." Huawei is doing business in

the United States and, more particularly, in the State of Texas and the Eastern District of Texas, by designing, marketing, making, using, selling, importing, and/or offering for sale products that infringe the patent claims involved in this action or by transacting other business in this District.

8.   Huawei Technologies Co., Ltd. was named as a defendant in CyWee's Original Complaint for Patent Infringement (Dkt. No. 1) and First Amended Complaint for Patent Infringement (Dkt. No. 8). CyWee files this Second Amended Complaint for Patent Infringement pursuant to Federal Rule of Civil Procedure 15(a)(2) based on (1) a representation from defendants' counsel that Huawei Device and Huawei Dongguan, rather than Huawei Technologies Co., Ltd., are appropriate defendants in this case and (2) a written request from defendants' counsel that CyWee file an amended complaint substituting said defendants.

JURISDICTION AND VENUE

9.   This action arises under the patent laws of the United States, 35 U.S.C. § 1 *et seq.* This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

10.   This Court has personal jurisdiction over each Defendant. Each Defendant has conducted and does conduct business within the State of Texas. Each Defendant has purposefully and voluntarily availed itself of the privileges of conducting business in the United States, the State of Texas, and the Eastern District

of Texas by continuously and systematically placing goods into the stream of commerce through an established distribution channel with the expectation that they will be purchased by consumers in the Eastern District of Texas. Huawei Device and Huawei USA previously did not challenge, and thereby submitted to, this Court's personal jurisdiction over them. *See NNPT, LLC v. Huawei Techs. Co., et al.*, No. 14-cv-00677, Dkt. Nos. 17 ¶ 10 & 19 ¶ 10 (E.D. Tex.). Plaintiff's causes of action arise directly from Defendants' business contacts and other activities in the State of Texas and the Eastern District of Texas. Additionally, Huawei USA is incorporated in Texas and has its principal place of business located within this District. Accordingly, this Court has personal jurisdiction over Huawei USA in that it resides in this District.

11.   Upon information and belief, each Defendant has committed acts of infringement in this District giving rise to this action and does business in this District, including making sales and/or providing service and support for their respective customers in this District. Defendants purposefully and voluntarily sold one or more of their infringing products with the expectation that they would be purchased by consumers in this District. These infringing products have been and continue to be purchased by consumers in this District. Defendants have committed acts of patent infringement within the United States, the State of Texas, and the Eastern District of Texas.

12.   Venue is proper as to Huawei USA under 28 U.S.C. § 1400(b) in that Huawei USA is incorporated in Texas and, therefore, resides in this District. *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1521 (2017).

13.   Venue is proper as to Huawei Device and Huawei Dongguan under 28 U.S.C. § 1391(c)(3) in that neither is not a resident of the United States and may, therefore, be sued in any judicial district. *Brunette Mach. Works, Ltd. v. Kockum Indus., Inc.*, 406 U.S. 706, 714 (1972).

BACKGROUND

14.   The Industrial Technology Research Institute ("ITRI") is a Taiwanese government- and industry-funded research and development center. In 2007, CyWee, which was started at ITRI, was formed. Its goal was to provide innovative motion-sensing technologies, such as those claimed in the patents-in-suit. Dr. Shun-Nan Liu and Chin-Lung Li, two of the inventors of the patents-in-suit, came to CyWee from ITRI. The third inventor, Zhou "Joe" Ye joined CyWee from private industry as its President and served as CEO from 2006 to 2016.

15.   The inventors, Zhou Ye, Chin-Lung Li, and Shun-Nan Liou, conceived of the claims of the patents-in-suit—U.S. Patent No. 8,441,438 (the "'438 Patent") and U.S. Patent No. 8,552,978 (the "'978 Patent")—at CyWee Group Ltd., located at 3F, No. 28, Lane 128, Jing Ye Road, Taipei.

16.   Several claims of the patents-in-suit are entitled to a priority date of at

least January 6, 2010 based on U.S. Provisional Application Serial No. 61/292,558, filed January 6, 2010 ("Provisional Application").

17.   Before May 22, 2009, CyWee began working on the "JIL Game Phone Project" or "JIL Phone." Before July 29, 2009, CyWee developed a solution for the JIL Phone that practiced several claims of the '438 Patent. Those claims were diligently and constructively reduced to practice thereafter through the filing of the Provisional Application and were diligently and actually reduced to practice as discussed below. Accordingly, CyWee is entitled to a priority date of at least July 29, 2009 for several claims of the '438 Patent.

18.   The JIL Phone was reduced to practice by at least September 25, 2009. The JIL Phone practiced several claims of both patents-in-suit. Accordingly, CyWee is entitled to a priority date of at least September 25, 2009 for several claims of the patents-in-suit.

PATENT INFRINGEMENT OF U.S. PATENT NO. 8,441,438

19.   Plaintiff repeats and re-alleges each and every allegation of paragraphs 1-18 as though fully set forth herein.

20.   The '438 Patent, titled "3D Pointing Device and Method for Compensating Movement Thereof," was duly and legally issued by the United States Patent and Trademark Office on May 14, 2013 to CyWee Group Ltd., as assignee of named inventors Zhou Ye, Chin-Lung Li, and Shun-Nan Liou.

21.   CyWee is the owner of all right, title, and interest in and to the '438

Patent with full right to bring suit to enforce the patent, including the right to recover

for past infringement damages.

22.   The '438 Patent claims, *inter alia*, a machine capable of detecting,

measuring, and calculating the movements and rotations of the machine—utilizing,

inter alia, a six-axis motion sensor module, a data transmitting unit, and a computing

processor in one or more claimed configurations—and methods for measuring and

calculating the movements and rotations of a device within a spatial reference frame.

The Declaration of Nicholas Gans, Ph.D. (the "Gans Decl.") regarding the nature of

the '438 Patent and the '978 Patent and the technologies claimed therein is attached

hereto as "Exhibit C" and is incorporated by reference as if fully set forth herein.

23.   The '438 Patent is directed to useful and novel particular embodiments

and methods for detecting, measuring, and calculating motion within a spatial

reference frame. *See* Gans. Decl. ¶ 16. Specifically, the '438 Patent claims a novel

system involving multiple sensor types and a novel method for using those sensors

to overcome the limitations of the individual sensor types in accurately determining

the orientation of a device. *See id.* ¶¶ 13-26. The '438 Patent is not intended to, and

does not, claim every possible means of detecting, measuring, and calculating

motion within a spatial reference frame. There are alternative methods to

determining orientation within a spatial reference frame, such as systems and

methods utilizing computer vision algorithms and/or cameras. *See id.* ¶¶ 23-26. Accordingly, the '438 Patent is not directed to, and does not claim, the mere concept of motion sensing or of detecting, measuring, and calculating motion within a spatial reference frame.

24.   Each and every claim of the '438 Patent is valid and enforceable and each enjoys a statutory presumption of validity separate, apart, and in addition to the statutory presumption of validity enjoyed by every other of its claims. 35 U.S.C. § 282.

25.   CyWee is informed and believes, and thereupon alleges, that Huawei has been, and is currently, directly and/or indirectly infringing one or more claims of the '438 Patent in violation of 35 U.S.C. § 271, including as stated below.

26.   CyWee is informed and believes, and thereupon alleges, that Huawei has directly infringed, literally and/or under the doctrine of equivalents, and will continue to directly infringe claims of the '438 Patent by making, using, selling, offering to sell, and/or importing into the United States products that embody or practice the apparatus and/or method covered by one or more claims of the '438 Patent, including but not limited to Defendants' following devices:

Huawei Nexus 6P

Huawei Mate 9

Huawei MediaPad M2 10.0

Huawei Honor 8

Mate 10

Mate 10 Pro

Mate 10 Porsche design[1]

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[1] The Mate 10 Porsche design, which is functionally equivalent to the Mate 10 Pro. *See*

27.   The foregoing devices are collectively referred to as the "'438 Accused Products" and include the below specifications and features.

28.   On information and belief, Huawei indirectly infringes the '438 Patent by inducing others to infringe one or more claims of the '438 Patent through sale and/or use of the '438 Accused Products. On information and belief, at least as a result of the filing of this action, Huawei is aware of the '438 Patent; is aware that its actions with regards to distributors, resellers, and/or end users of the '438 Accused Products would induce infringement; and despite such awareness will continue to take active steps—such as, creating and disseminating the '438 Accused Products and product manuals, instructions, promotional and marketing materials, and/or technical materials to distributors, resellers, and end users—encouraging other's infringement of the '438 Patent with the specific intent to induce such infringement.[2]

29.   The Huawei Nexus 6P includes a display screen.

30.   The Huawei Nexus 6P includes a housing.

31.   The Huawei Nexus 6P includes a 3-axis accelerometer.

32.   The Huawei Nexus 6P includes a 3-axis gyroscope.

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https://www.phonearena.com/news/Huawei-Mate-10-Pro-Mate-10-Porsche-Design-differences_id102298.

[2] To preempt any argument that such allegations are insufficient to establish a claim for induced infringement, CyWee would respectfully note that this Court has previously held such allegations sufficient. *See, e.g., Huawei Techs. Co. v. T-Mobile US, Inc.*, Case No. 2:16-cv-00052-JRG-RSP, 2017 WL 1129951, at *3 (E.D. Tex. Feb. 21, 2017) ("Huawei's complaints adequately plead knowledge. Huawei alleges that T-Mobile knew of the asserted patents 'since at least the filing of this action.'").

33.   The Huawei Nexus 6P includes at least one printed circuit board ("PCB").

34.   The Huawei Nexus 6P includes a 3-axis accelerometer attached to a PCB.

35.   The Huawei Nexus 6P includes a 3-axis gyroscope attached to a PCB.

36.   The Huawei Nexus 6P includes a 3-axis accelerometer that is capable of measuring accelerations.

37.   The Huawei Nexus 6P includes a 3-axis gyroscope that is capable of measuring rotation rates.

38.   The Huawei Nexus 6P runs an Android^{TM} operating system.

39.   The Huawei Nexus 6P includes a 3-axis accelerometer that is capable of measuring accelerations using a "Sensor Coordinate System" as described in the Android^{TM} developer library. *See* https://developer.android.com/guide/topics/sensors/sensors_overview.html (describing "Sensor Coordinate System").

40.   The Huawei Nexus 6P includes a 3-axis gyroscope that is capable of measuring rotation rates using a "Sensor Coordinate System."

41.   The Huawei Nexus 6P includes a processor that is capable of processing data associated with measurement from a 3-axis accelerometer.

42.   The Huawei Nexus 6P includes a processor that is capable of processing data associated with measurement from a 3-axis gyroscope.

43.   The Android™ operating system that runs on the Huawei Nexus 6P uses the measurement from a 3-axis accelerometer included in the device.

44.   The Android™ operating system that runs on the Huawei Nexus 6P uses the measurement from a 3-axis gyroscope included in the device.

45.   The Android™ operating system that runs on the Huawei Nexus 6P uses the measurement from a 3-axis accelerometer and the measurement from a 3-axis gyroscope to calculate an attitude of the device.

46.   The Huawei Mate 9 includes a display screen.

47.   The Huawei Mate 9 includes a housing.

48.   The Huawei Mate 9 includes a 3-axis accelerometer.

49.   The Huawei Mate 9 includes a 3-axis gyroscope.

50.   The Huawei Mate 9 includes at least one PCB.

51.   The Huawei Mate 9 includes a 3-axis accelerometer attached to a PCB.

52.   The Huawei Mate 9 includes a 3-axis gyroscope attached to a PCB.

53.   The Huawei Mate 9 includes a 3-axis accelerometer that is capable of measuring accelerations.

54.   The Huawei Mate 9 includes a 3-axis gyroscope that is capable of measuring rotation rates.

55.   The Huawei Mate 9 runs an Android™ operating system.

56.   The Huawei Mate 9 includes a 3-axis accelerometer that is capable of

measuring accelerations using a "Sensor Coordinate System" as described in the Android™ developer library. *See* https://developer.android.com/guide/topics /sensors/sensors_overview.html (describing "Sensor Coordinate System").

57.   The Huawei Mate 9 includes a 3-axis gyroscope that is capable of measuring rotation rates using a "Sensor Coordinate System."

58.   The Huawei Mate 9 includes a processor that is capable of processing data associated with measurement from a 3-axis accelerometer.

59.   The Huawei Mate 9 includes a processor that is capable of processing data associated with measurement from a 3-axis gyroscope.

60.   The Android™ operating system that runs on the Huawei Mate 9 uses the measurement from a 3-axis accelerometer included in the device.

61.   The Android™ operating system that runs on the Huawei Mate 9 uses the measurement from a 3-axis gyroscope included in the device.

62.   The Android™ operating system that runs on the Huawei Mate 9 uses the measurement from a 3-axis accelerometer and the measurement from a 3-axis gyroscope to calculate an attitude of the device.

63.   The Huawei Honor 8 includes a display screen.

64.   The Huawei Honor 8 includes a housing.

65.   The Huawei Honor 8 includes a 3-axis accelerometer.

66.   The Huawei Honor 8 includes a 3-axis gyroscope.

67.   The Huawei Honor 8 includes at least one PCB.

68.   The Huawei Honor 8 includes a 3-axis accelerometer attached to a PCB.

69.   The Huawei Honor 8 includes a 3-axis gyroscope attached to a PCB.

70.   The Huawei Honor 8 includes a 3-axis accelerometer that is capable of measuring accelerations.

71.   The Huawei Honor 8 includes a 3-axis gyroscope that is capable of measuring rotation rates.

72.   The Huawei Honor 8 runs an Android^{TM} operating system.

73.   The Huawei Honor 8 includes a 3-axis accelerometer that is capable of measuring accelerations using a "Sensor Coordinate System" as described in the Android^{TM} developer library. *See* https://developer.android.com/guide/topics/sensors/sensors_overview.html (describing "Sensor Coordinate System").

74.   The Huawei Honor 8 includes a 3-axis gyroscope that is capable of measuring rotation rates using a "Sensor Coordinate System."

75.   The Huawei Honor 8 includes a processor that is capable of processing data associated with measurement from a 3-axis accelerometer.

76.   The Huawei Honor 8 includes a processor that is capable of processing data associated with measurement from a 3-axis gyroscope.

77.   The Android^{TM} operating system that runs on the Huawei Honor 8 uses

the measurement from a 3-axis accelerometer included in the device.

78.   The Android™ operating system that runs on the Huawei Honor 8 uses the measurement from a 3-axis gyroscope included in the device.

79.   The Android™ operating system that runs on the Huawei Honor 8 uses the measurement from a 3-axis accelerometer and the measurement from a 3-axis gyroscope to calculate an attitude of the device.

80.   The Huawei MediaPad M2 10.0 includes a display screen.

81.   The Huawei MediaPad M2 10.0 includes a housing.

82.   The Huawei MediaPad M2 10.0 includes a 3-axis accelerometer.

83.   The Huawei MediaPad M2 10.0 includes a 3-axis gyroscope.

84.   The Huawei MediaPad M2 10.0 includes at least one PCB.

85.   The Huawei MediaPad M2 10.0 includes a 3-axis accelerometer attached to a PCB.

86.   The Huawei MediaPad M2 10.0 includes a 3-axis gyroscope attached to a PCB.

87.   The Huawei MediaPad M2 10.0 includes a 3-axis accelerometer that is capable of measuring accelerations.

88.   The Huawei MediaPad M2 10.0 includes a 3-axis gyroscope that is capable of measuring rotation rates.

89.   The Huawei MediaPad M2 10.0 runs an Android™ operating system.

90.   The Huawei MediaPad M2 10.0 includes a 3-axis accelerometer that is capable of measuring accelerations using a "Sensor Coordinate System" as described in the Android™ developer library. *See* https://developer.android.com/guide/topics/sensors/sensors_overview.html (describing "Sensor Coordinate System").

91.   The Huawei MediaPad M2 10.0 includes a 3-axis gyroscope that is capable of measuring rotation rates using a "Sensor Coordinate System."

92.   The Huawei MediaPad M2 10.0 includes a processor that is capable of processing data associated with measurement from a 3-axis accelerometer.

93.   The Huawei MediaPad M2 10.0 includes a processor that is capable of processing data associated with measurement from a 3-axis gyroscope.

94.   The Android™ operating system that runs on the Huawei MediaPad M2 10.0 uses the measurement from a 3-axis accelerometer included in the device.

95.   The Android™ operating system that runs on the Huawei MediaPad M2 10.0 uses the measurement from a 3-axis gyroscope included in the device.

96.   The Android™ operating system that runs on the Huawei MediaPad M2 10.0 uses the measurement from a 3-axis accelerometer and the measurement from a 3-axis gyroscope to calculate an attitude of the device.

97.   The Huawei Mate 10 includes a display screen.

98.   The Huawei Mate 10 includes a housing.

99.   The Huawei Mate 10 includes a 3-axis accelerometer.

100.   The Huawei Mate 10 includes a 3-axis gyroscope.

101.   The Huawei Mate 10 includes at least one printed circuit board ("PCB").

102.   The Huawei Mate 10 includes a 3-axis accelerometer attached to a PCB.

103.   The Huawei Mate 10 includes a 3-axis gyroscope attached to a PCB.

104.   The Huawei Mate 10 includes a 3-axis accelerometer that is capable of measuring accelerations.

105.   The Huawei Mate 10 includes a 3-axis gyroscope that is capable of measuring rotation rates.

106.   The Huawei Mate 10 runs an Android^{TM} operating system.

107.   The Huawei Mate 10 includes a 3-axis accelerometer that is capable of measuring accelerations using a "Sensor Coordinate System" as described in the Android^{TM} developer library. *See* https://developer.android.com/guide/topics/sensors/sensors_overview.html (describing "Sensor Coordinate System").

108.   The Huawei Mate 10 includes a 3-axis gyroscope that is capable of measuring rotation rates using a "Sensor Coordinate System."

109.   The Huawei Mate 10 includes a processor that is capable of processing data associated with measurement from a 3-axis accelerometer.

110.   The Huawei Mate 10 includes a processor that is capable of processing data associated with measurement from a 3-axis gyroscope.

111.   The Android™ operating system that runs on the Huawei Mate 10 uses the measurement from a 3-axis accelerometer included in the device.

112.   The Android™ operating system that runs on the Huawei Mate 10 uses the measurement from a 3-axis gyroscope included in the device.

113.   The Android™ operating system that runs on the Huawei Mate 10 uses the measurement from a 3-axis accelerometer and the measurement from a 3-axis gyroscope to calculate an attitude of the device.

114.   The Huawei Mate 10 Pro includes a display screen.

115.   The Huawei Mate 10 Pro includes a housing.

116.   The Huawei Mate 10 Pro includes a 3-axis accelerometer.

117.   The Huawei Mate 10 Pro includes a 3-axis gyroscope.

118.   The Huawei Mate 10 Pro includes at least one printed circuit board ("PCB").

119.   The Huawei Mate 10 Pro includes a 3-axis accelerometer attached to a PCB.

120.   The Huawei Mate 10 Pro includes a 3-axis gyroscope attached to a PCB.

121.   The Huawei Mate 10 Pro includes a 3-axis accelerometer that is capable

of measuring accelerations.

122.   The Huawei Mate 10 Pro includes a 3-axis gyroscope that is capable of measuring rotation rates.

123.   The Huawei Mate 10 Pro runs an Android™ operating system.

124.   The Huawei Mate 10 Pro includes a 3-axis accelerometer that is capable of measuring accelerations using a "Sensor Coordinate System" as described in the Android™ developer library. *See* https://developer.android.com/guide/topics/sensors/sensors_overview.html (describing "Sensor Coordinate System").

125.   The Huawei Mate 10 Pro includes a 3-axis gyroscope that is capable of measuring rotation rates using a "Sensor Coordinate System."

126.   The Huawei Mate 10 Pro includes a processor that is capable of processing data associated with measurement from a 3-axis accelerometer.

127.   The Huawei Mate 10 Pro includes a processor that is capable of processing data associated with measurement from a 3-axis gyroscope.

128.   The Android™ operating system that runs on the Huawei Mate 10 Pro uses the measurement from a 3-axis accelerometer included in the device.

129.   The Android™ operating system that runs on the Huawei Mate 10 Pro uses the measurement from a 3-axis gyroscope included in the device.

130.   The Android™ operating system that runs on the Huawei Mate 10 Pro uses the measurement from a 3-axis accelerometer and the measurement from a 3-

axis gyroscope to calculate an attitude of the device.

131.   The Huawei Mate 10 Porsche includes a display screen.

132.   The Huawei Mate 10 Porsche includes a housing.

133.   The Huawei Mate 10 Porsche includes a 3-axis accelerometer.

134.   The Huawei Mate 10 Porsche includes a 3-axis gyroscope.

135.   The Huawei Mate 10 Porsche includes at least one printed circuit board

("PCB").

136.   The Huawei Mate 10 Porsche includes a 3-axis accelerometer attached

to a PCB.

137.   The Huawei Mate 10 Porsche includes a 3-axis gyroscope attached to a

PCB.

138.   The Huawei Mate 10 Porsche includes a 3-axis accelerometer that is

capable of measuring accelerations.

139.   The Huawei Mate 10 Porsche includes a 3-axis gyroscope that is

capable of measuring rotation rates.

140.   The Huawei Mate 10 Porsche runs an Android™ operating system.

141.   The Huawei Mate 10 Porsche includes a 3-axis accelerometer that is

capable of measuring accelerations using a "Sensor Coordinate System" as described

in the Android™ developer library. *See* https://developer.android.com/guide/topics

/sensors/sensors_overview.html (describing "Sensor Coordinate System").

142.   The Huawei Mate 10 Porsche includes a 3-axis gyroscope that is capable of measuring rotation rates using a "Sensor Coordinate System."

143.   The Huawei Mate 10 Porsche includes a processor that is capable of processing data associated with measurement from a 3-axis accelerometer.

144.   The Huawei Mate 10 Porsche includes a processor that is capable of processing data associated with measurement from a 3-axis gyroscope.

145.   The Android™ operating system that runs on the Huawei Mate 10 Porsche uses the measurement from a 3-axis accelerometer included in the device.

146.   The Android™ operating system that runs on the Huawei Mate 10 Porsche uses the measurement from a 3-axis gyroscope included in the device.

147.   The Android™ operating system that runs on the Huawei Mate 10 Porsche uses the measurement from a 3-axis accelerometer and the measurement from a 3-axis gyroscope to calculate an attitude of the device.

148.   Huawei's actions with regards to distributors, resellers, and/or end users of the '438 Accused Products induce infringement of the patent by others, and Huawei is aware that its actions induce infringement. Despite such awareness, Huawei continues to take active steps—such as creating and disseminating the '438 Accused Products, and product manuals, instructions, support materials, promotional and marketing materials, and/or technical materials to distributors, resellers, and end users—encouraging others to infringe the '438 Patent with the

specific intent to induce such infringement.

149. Huawei provides manuals and instructions for the '438 Accused Products and/or provides instructional and support materials on its website that teach and instruct its customers to operate those products in ways that practice the claimed invention. For instance, Huawei provides user guides for each of the '438 Accused Products, and those user guides describe how to "[u]se simple gestures to control your phone." Exhibit D at 136 (Huawei Honor 8 User Guide). Among other things, the user guides teach the use of motion gestures, which depend upon device orientation, to perform functions such as muting sounds and disabling vibrations for incoming calls, alarms, and timers by flipping the device up and back down, reducing the volume of the ringtone for incoming calls, alarms, and timers by picking up the device, answering incoming calls and/or switching to earpiece mode by raising the device to your ear, moving icons on the screen of the device by tilting the device, and changing the orientation of photographs displayed on the screen of the device by rotating the device. *See, e.g.,* Exhibit D at 136-37; Exhibit E at 54-55 (Huawei Mate 9 User Guide); Exhibit F at 76 (Huawei Mate 10 Pro User Guide).

150. Additionally, during its keynote presentation of the Huawei Mate 10 Pro at the 2018 International Consumer Electronics Show in Las Vegas, Huawei specifically emphasized and advertised the VR capabilities of the Huawei Mate 10 Pro. Exhibit G (Image for 2018 CES Huawei Keynote). And Huawei continues to

induce infringement by end-users by advertising the VR capabilities of the Huawei Mate 10 Pro on its website. *See* https://consumer.huawei.com/content/dam/huawei-cbg-site/other/us/mkt/pdp/phones/huawei-mate-10-pro/media/180111_Huawei_LasVegas_PK_V01.mp4 (last visited May 8, 2018).

151.   Huawei has continued to instruct end-users of the '438 Accused Products to operate those products in ways that practice the claimed invention even after being put on actual notice of the infringement of the '438 Patent. CyWee believes that discovery, which is ongoing, will reveal even more facts demonstrating HTC's induced infringement of the '438 Patent.

152.   CyWee adopts, and incorporates by reference, as if fully stated herein, the attached claim chart for claim 14 of the '438 Patent, which is attached hereto as Exhibit A. The claim chart describes and demonstrates how Huawei infringes the '438 Patent. In addition, CyWee alleges that Huawei infringes one or more additional claims of the '438 Patent in a similar manner.

153.   Defendants' acts of infringement have caused and will continue to cause substantial and irreparable damage to CyWee.

154.   As a result of Defendants' infringement of the '438 Patent, CyWee has been damaged. CyWee is, therefore, entitled to damages pursuant to 35 U.S.C. § 284 in an amount that presently cannot be pled but that will be determined at trial.

PATENT INFRINGEMENT OF U.S. PATENT NO. 8,552,978

155.   Plaintiff repeats and re-alleges each and every allegation of paragraphs 1-154 as though fully set forth herein.

156.   The '978 Patent, titled "3D Pointing Device and Method for Compensating Rotations of the 3D Pointing Device Thereof," was duly and legally issued by the United States Patent and Trademark Office on October 8, 2013 to CyWee Group Ltd., as assignee of named inventors Zhou Ye, Chin-Lung Li, and Shun-Nan Liou.

157.   CyWee is the owner of all right, title, and interest in and to the '978 Patent with full right to bring suit to enforce the patent, including the right to recover for past infringement damages.

158.   The '978 Patent claims, *inter alia*, a machine capable of detecting, measuring, and calculating the movements and rotations of the machine—utilizing, *inter alia*, a nine-axes motion sensor module and two computing processors in one or more claimed configurations—and methods for measuring and calculating the movements and rotations of a device within a spatial reference frame. *See, generally,* Gans Decl., p. 2-4, ¶¶ 8-12.

159.   The '978 Patent is directed to useful and novel particular embodiments and methods for detecting, measuring, and calculating motion within a spatial reference frame. *Id.* ¶ 16. Specifically, the '978 Patent claims a novel system involving multiple sensor types and a novel method for using those sensors to

overcome the limitations of the individual sensor types in accurately determining the orientation of a device. *See id.* ¶¶ 13-26. The '978 Patent is not intended to, and does not, claim every possible means of detecting, measuring, and calculating motion within a spatial reference frame. There are alternative methods to determining orientation within a spatial reference frame, such as systems and methods utilizing computer vision algorithms and/or cameras. *See id.* ¶¶ 23-26. Accordingly, the '978 Patent is not directed to, and does not claim, the mere concept of motion sensing or of detecting, measuring, and calculating motion within a spatial reference frame.

160.   Each and every claim of the '978 Patent is valid and enforceable and each enjoys a statutory presumption of validity separate, apart, and in addition to the statutory presumption of validity enjoyed by every other of its claims. 35 U.S.C. § 282.

161.   CyWee is informed and believes, and thereupon alleges, that Huawei has been, and is currently, directly and/or indirectly infringing one or more claims of the '978 Patent in violation of 35 U.S.C. § 271, including as stated below.

162.   CyWee is informed and believes, and thereupon alleges, that Huawei has directly infringed, literally and/or under the doctrine of equivalents, and will continue to directly infringe claims of the '978 Patent by making, using, selling, offering to sell, and/or importing into the United States products that embody or practice the apparatus and/or method covered by one or more claims of the '978

Patent, including but not limited to Defendants' following devices:

Huawei Nexus 6P

Huawei Mate 9

Huawei MediaPad M2 10.0

Huawei Honor 8

Mate 10

Mate 10 Pro

Mate 10 Porsche design

163.   The foregoing devices are collectively referred to as the "'978 Accused Products" and include the following specifications and features.

164.   On information and belief, Huawei indirectly infringes the '978 Patent by inducing others to infringe one or more claims of the '978 Patent through sale and/or use of the '978 Accused Products. On information and belief, at least as a result of the filing of this action, Huawei is aware of the '978 Patent; is aware that its actions with regards to distributors, resellers, and/or end users of the '978 Accused Products would induce infringement; and despite such awareness will continue to take, active steps—such as, creating and disseminating the '978 Accused Products, and product manuals, instructions, promotional and marketing materials, and/or technical materials to distributors, resellers, and end users—encouraging other's infringement of the '978 Patent with the specific intent to induce such infringement.

165.   The Huawei Nexus 6P includes a 3-axis geomagnetic sensor.

166.   The Huawei Nexus 6P includes a 3-axis geomagnetic sensor that is capable of measuring a geomagnetic field.

167.   The Huawei Nexus 6P includes a 3-axis geomagnetic field sensor to measure a geomagnetic field using a "Sensor Coordinate System." *See* https://developer.android.com/guide/topics/sensors/sensors_overview.html (describing "Sensor Coordinate System").

168.   The Android operating system that runs on the Huawei Nexus 6P uses the measurement from a 3-axis geomagnetic sensor included in the device.

169.   The Android operating system that runs on the Huawei Nexus 6P uses the measurement from a 3-axis accelerometer, the measurement from a 3-axis geomagnetic field sensor, and the measurement from a 3-axis gyroscope to calculate an attitude of the device.

170.   The Android operating system that runs on the Huawei Nexus 6P uses the measurement from a 3-axis accelerometer, the measurement from a 3-axis geomagnetic field sensor, and the measurement from a 3-axis gyroscope to calculate an attitude of the device that can be represented by an azimuth angle, a pitch angle, and a roll angle.

171.   The Huawei Nexus 6P has the ability to directly control apps by moving or rotating the device (for example, racing game apps).

172.   The Huawei Nexus 6P has the ability to run apps that can provide information based on the direction your device is facing, such as a map or navigation app.

173.   The Huawei Mate 9 includes a 3-axis geomagnetic sensor.

174.   The Huawei Mate 9 includes a 3-axis geomagnetic sensor that is capable of measuring a geomagnetic field.

175.   The Huawei Mate 9 includes a 3-axis geomagnetic field sensor to

measure a geomagnetic field using a "Sensor Coordinate System." *See* https://developer.android.com/guide/topics/sensors/sensors_overview.html (describing "Sensor Coordinate System").

176.   The Android operating system that runs on the Huawei Mate 9 uses the measurement from a 3-axis geomagnetic sensor included in the device.

177.   The Android operating system that runs on the Huawei Mate 9 uses the measurement from a 3-axis accelerometer, the measurement from a 3-axis geomagnetic field sensor, and the measurement from a 3-axis gyroscope to calculate an attitude of the device.

178.   The Android operating system that runs on the Huawei Mate 9 uses the measurement from a 3-axis accelerometer, the measurement from a 3-axis geomagnetic field sensor, and the measurement from a 3-axis gyroscope to calculate an attitude of the device that can be represented by an azimuth angle, a pitch angle, and a roll angle.

179.   The Huawei Mate 9 has the ability to directly control apps by moving or rotating the device (for example, racing game apps).

180.   The Huawei Mate 9 has the ability to run apps that can provide information based on the direction your device is facing, such as a map or navigation app.

181.   The Huawei Honor 8 includes a 3-axis geomagnetic sensor.

182.   The Huawei Honor 8 includes a 3-axis geomagnetic sensor that is capable of measuring a geomagnetic field.

183.   The Huawei Honor 8 includes a 3-axis geomagnetic field sensor to measure a geomagnetic field using a "Sensor Coordinate System." *See* https://developer.android.com/guide/topics/sensors/sensors_overview.html (describing "Sensor Coordinate System").

184.   The Android operating system that runs on the Huawei Honor 8 uses the measurement from a 3-axis geomagnetic sensor included in the device.

185.   The Android operating system that runs on the Huawei Honor 8 uses the measurement from a 3-axis accelerometer, the measurement from a 3-axis geomagnetic field sensor, and the measurement from a 3-axis gyroscope to calculate an attitude of the device.

186.   The Android operating system that runs on the Huawei Honor 8 uses the measurement from a 3-axis accelerometer, the measurement from a 3-axis geomagnetic field sensor, and the measurement from a 3-axis gyroscope to calculate an attitude of the device that can be represented by an azimuth angle, a pitch angle, and a roll angle.

187.   The Huawei Honor 8 has the ability to directly control apps by moving or rotating the device (for example, racing game apps).

188.   The Huawei Honor 8 has the ability to run apps that can provide

information based on the direction your device is facing, such as a map or navigation app.

189.   The Huawei MediaPad M2 10.0 includes a 3-axis geomagnetic sensor.

190.   The Huawei MediaPad M2 10.0 includes a 3-axis geomagnetic sensor that is capable of measuring a geomagnetic field.

191.   The Huawei MediaPad M2 10.0 includes a 3-axis geomagnetic field sensor to measure a geomagnetic field using a "Sensor Coordinate System." *See* https://developer.android.com/guide/topics/sensors/sensors_overview.html (describing "Sensor Coordinate System").

192.   The Android operating system that runs on the Huawei MediaPad M2 10.0 uses the measurement from a 3-axis geomagnetic sensor included in the device.

193.   The Android operating system that runs on the Huawei MediaPad M2 10.0 uses the measurement from a 3-axis accelerometer, the measurement from a 3-axis geomagnetic field sensor, and the measurement from a 3-axis gyroscope to calculate an attitude of the device.

194.   The Android operating system that runs on the Huawei MediaPad M2 10.0 uses the measurement from a 3-axis accelerometer, the measurement from a 3-axis geomagnetic field sensor, and the measurement from a 3-axis gyroscope to calculate an attitude of the device that can be represented by an azimuth angle, a pitch angle, and a roll angle.

195.   The Huawei MediaPad M2 10.0 has the ability to directly control apps by moving or rotating the device (for example, racing game apps).

196.   The Huawei MediaPad M2 10.0 has the ability to run apps that can provide information based on the direction your device is facing, such as a map or navigation app.

197.   The Huawei Mate 10 includes a 3-axis geomagnetic sensor.

198.   The Huawei Mate 10 includes a 3-axis geomagnetic sensor that is capable of measuring a geomagnetic field.

199.   The Huawei Mate 10 includes a 3-axis geomagnetic field sensor to measure a geomagnetic field using a "Sensor Coordinate System." *See* https://developer.android.com/guide/topics/sensors/sensors_overview.html (describing "Sensor Coordinate System").

200.   The Android operating system that runs on the Huawei Mate 10 uses the measurement from a 3-axis geomagnetic sensor included in the device.

201.   The Android operating system that runs on the Huawei Mate 10 uses the measurement from a 3-axis accelerometer, the measurement from a 3-axis geomagnetic field sensor, and the measurement from a 3-axis gyroscope to calculate an attitude of the device.

202.   The Android operating system that runs on the Huawei Mate 10 uses the measurement from a 3-axis accelerometer, the measurement from a 3-axis

geomagnetic field sensor, and the measurement from a 3-axis gyroscope to calculate an attitude of the device that can be represented by an azimuth angle, a pitch angle, and a roll angle.

203.   The Huawei Mate 10 has the ability to directly control apps by moving or rotating the device (for example, racing game apps).

204.   The Huawei Mate 10 has the ability to run apps that can provide information based on the direction your device is facing, such as a map or navigation app.

205.   The Huawei Mate 10 Pro includes a 3-axis geomagnetic sensor.

206.   The Huawei Mate 10 Pro includes a 3-axis geomagnetic sensor that is capable of measuring a geomagnetic field.

207.   The Huawei Mate 10 Pro includes a 3-axis geomagnetic field sensor to measure a geomagnetic field using a "Sensor Coordinate System." *See* https://developer.android.com/guide/topics/sensors/sensors_overview.html (describing "Sensor Coordinate System").

208.   The Android operating system that runs on the Huawei Mate 10 Pro uses the measurement from a 3-axis geomagnetic sensor included in the device.

209.   The Android operating system that runs on the Huawei Mate 10 Pro uses the measurement from a 3-axis accelerometer, the measurement from a 3-axis geomagnetic field sensor, and the measurement from a 3-axis gyroscope to calculate

an attitude of the device.

210.   The Android operating system that runs on the Huawei Mate 10 Pro uses the measurement from a 3-axis accelerometer, the measurement from a 3-axis geomagnetic field sensor, and the measurement from a 3-axis gyroscope to calculate an attitude of the device that can be represented by an azimuth angle, a pitch angle, and a roll angle.

211.   The Huawei Mate 10 Pro has the ability to directly control apps by moving or rotating the device (for example, racing game apps).

212.   The Huawei Mate 10 Pro has the ability to run apps that can provide information based on the direction your device is facing, such as a map or navigation app.

213.   The Huawei Mate 10 Porsche includes a 3-axis geomagnetic sensor.

214.   The Huawei Mate 10 Porsche includes a 3-axis geomagnetic sensor that is capable of measuring a geomagnetic field.

215.   The Huawei Mate 10 Porsche includes a 3-axis geomagnetic field sensor to measure a geomagnetic field using a "Sensor Coordinate System." *See* https://developer.android.com/guide/topics/sensors/sensors_overview.html (describing "Sensor Coordinate System").

216.   The Android operating system that runs on the Huawei Mate 10 Porsche uses the measurement from a 3-axis geomagnetic sensor included in the device.

217.   The Android operating system that runs on the Huawei Mate 10 Porsche uses the measurement from a 3-axis accelerometer, the measurement from a 3-axis geomagnetic field sensor, and the measurement from a 3-axis gyroscope to calculate an attitude of the device.

218.   The Android operating system that runs on the Huawei Mate 10 Porsche uses the measurement from a 3-axis accelerometer, the measurement from a 3-axis geomagnetic field sensor, and the measurement from a 3-axis gyroscope to calculate an attitude of the device that can be represented by an azimuth angle, a pitch angle, and a roll angle.

219.   The Huawei Mate 10 Porsche has the ability to directly control apps by moving or rotating the device (for example, racing game apps).

220.   The Huawei Mate 10 Porsche has the ability to run apps that can provide information based on the direction your device is facing, such as a map or navigation app.

221.   Huawei's actions with regards to distributors, resellers, and/or end users of the '978 Accused Products induce infringement of the patent by others, and Huawei is aware that its actions induce infringement. Despite such awareness, Huawei continues to take active steps—such as creating and disseminating the '978 Accused Products, and product manuals, instructions, support materials, promotional and marketing materials, and/or technical materials to distributors,

resellers, and end users—encouraging others to infringe the '978 Patent with the specific intent to induce such infringement.

222.   Huawei provides manuals and instructions for the '978 Accused Products and/or provides instructional and support materials on its website that teach and instruct its customers to operate those products in ways that practice the claimed invention. For instance, Huawei provides user guides for each of the '978 Accused Products, and those user guides describe how to "[u]se simple gestures to control your phone." Exhibit D at 136. Among other things, the user guides teach the use of motion gestures, which depend upon device orientation, to perform functions such as muting sounds and disabling vibrations for incoming calls, alarms, and timers by flipping the device up and back down, reducing the volume of the ringtone for incoming calls, alarms, and timers by picking up the device, answering incoming calls and/or switching to earpiece mode by raising the device to your ear, moving icons on the screen of the device by tilting the device, and changing the orientation of photographs displayed on the screen of the device by rotating the device. *See, e.g.,* Exhibit D at 136-37; Exhibit E at 54-55; Exhibit F at 76.

223.   Additionally, during its keynote presentation of the Huawei Mate 10 Pro at the 2018 International Consumer Electronics Show in Las Vegas, Huawei specifically emphasized and advertised the VR capabilities of the Huawei Mate 10 Pro. Exhibit G. And Huawei continues to induce infringement by end-users by

advertising the VR capabilities of the Huawei Mate 10 Pro on its website. *See*

https://consumer.huawei.com/content/dam/huawei-cbg-

site/other/us/mkt/pdp/phones/huawei-mate-10-

pro/media/180111_Huawei_LasVegas_PK_V01.mp4 (last visited May 8, 2018).

224.   Huawei has continued to instruct end-users of the '978 Accused

Products to operate those products in ways that practice the claimed invention even

after being put on actual notice of the infringement of the '978 Patent. CyWee

believes that discovery, which is ongoing, will reveal even more facts demonstrating

HTC's induced infringement of the '978 Patent.

225.   CyWee adopts, and incorporates by reference, as if fully stated herein,

the attached claim chart for claim 10 of the '978 Patent, which is attached hereto as

Exhibit B. The claim chart describes and demonstrates how Huawei infringes the

'978 Patent. In addition, CyWee alleges that Huawei infringes one or more

additional claims of the '978 Patent in a similar manner.

226.   Defendants' acts of infringement have caused and will continue to

cause substantial and irreparable damage to CyWee.

227.   As a result of Defendants' infringement of the '978 Patent, CyWee has

been damaged. CyWee is, therefore, entitled to damages pursuant to 35 U.S.C. § 284

in an amount that presently cannot be pled but that will be determined at trial.

PRAYER FOR RELIEF

WHEREFORE, PREMISES CONSIDERED, Plaintiff prays for entry of judgment against Defendants as follows:

A.   A judgment that Defendants have infringed and continue to infringe the '438 Patent and '978 Patent, directly and/or indirectly, as alleged herein;

B.   That Defendants provide to CyWee an accounting of all gains, profits, and advantages derived by Defendants' infringement of the '438 Patent and '978 Patent, and that CyWee be awarded damages adequate to compensate them for the wrongful infringement by Defendants, in accordance with 35 U.S.C. § 284;

C.   That CyWee be awarded any other supplemental damages and interest on all damages, including, but not limited to, attorney fees available under 35 U.S.C. § 285;

D.   That the Court permanently enjoin Defendants and all those in privity with Defendants from making, having made, selling, offering for sale, distributing, and/or using products that infringe the '438 Patent and '978 Patent, including the '438 Accused Products and/or '978 Accused Products, in the United States; and

E.   That CyWee be awarded such other and further relief and all remedies available at law.

DEMAND FOR JURY TRIAL

Pursuant to Federal Rule of Civil Procedure 38(b), CyWee hereby demands a trial by jury on all issues triable to a jury.

Dated: May 11, 2018

Respectfully submitted,

/s/ Ari B. Rafilson

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COUNSEL FOR PLAINTIFF
CYWEE GROUP LTD.

<u>CERTIFICATE OF SERVICE</u>

The undersigned certifies that all counsel of record who are deemed to have

consented to electronic service are being served with a true and correct copy of this

document and accompanying exhibits via the Court's CM/ECF system per Local

Rule CV-5(a)(3) on May 11, 2018.

/s/Ari Rafilson
Ari Rafilson