UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

HUAWEI TECHNOLOGIES CO. LTD.,	)	Civil Action No. 2:19-cv-00222-JRG
Plaintiff / Counterclaim-Defendant,	)	**JURY TRIAL DEMANDED**
v.	)	
HARRIS CORPORATION AND L3 TECHNOLOGIES, INC.,	)	
Defendants / Counterclaim-Plaintiffs.	)	

PLAINTIFF'S AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Huawei Technologies Co. Ltd. ("Huawei") hereby files this Amended Complaint for Patent Infringement against Defendants Harris Corporation ("Harris")[1] and L3 Technologies, Inc. ("L3") (collectively, "Defendants") and alleges as follows:

NATURE OF ACTION

1. This is an action brought by Huawei against Harris for infringement of U.S. Patent Nos. RE44,325 ("the '325 Patent"), 8,416,892 ("the '892 Patent"), 8,798,575 ("the '575 Patent"), 9,838,851 ("the '851 Patent"), and 10,117,226 ("the '226 Patent"); and against L3 for infringement of the '325 Patent (collectively, "the Huawei Asserted Patents").

[1] As discussed below, upon information and belief, Harris Corporation has been renamed "L3Harris Technologies Inc." Counsel for Huawei has twice reached out to counsel for Harris on July 11 and August 22, 2019 about updating the case caption to reflect this name change and to request an updated Corporate Disclosure Statement, but counsel for Harris has not sought to have the case caption updated or submitted any such updated statement. References to "Harris" throughout this Amended Complaint should be understood to apply equally to "L3Harris Technologies, Inc."

PARTIES

2. Huawei Technologies Co. Ltd. is a Chinese company with a place of business in Shenzhen, People's Republic of China.

3. Founded in 1987 in Shenzhen, China, Huawei has become a global leader of information and communication technology ("ICT") solutions. Continuously innovating to meet customer need, Huawei is committed to enhancing customer experience and creating maximum value for telecommunications carriers, enterprises, and consumers. Huawei's telecom network equipment, IT products and solutions, and smart devices are deployed and used in more than 170 countries and regions and serve over one-third of the world's population. Huawei currently employs 180,000 employees globally.

4. Huawei is a leader in research, innovation, and implementation of future networks, focusing on current customer needs, as well as long-term technology research and standardization. Huawei has invested substantially in research and development to become and maintain its global leadership in 4G, 5G and other wireless communications technology. Huawei has assembled a global team of approximately 80,000 employees working on research and development, located in 36 joint innovation centers and 14 R&D centers around the world.

5. Huawei's innovations are central to important cutting-edge technologies, including ultrabroadband solutions, such as LTE wireless networks. As a result of Huawei's substantial dedication to R&D in the telecommunications industry over the past three decades, Huawei has witnessed and contributed to the evolution of telecommunication networks from the Wire Link Age, into the Wireless Age, and developing from 2G to 3G to 4G, with current progress toward 5G. Over the course of this evolution, Huawei has been responsible for several of the industry's notable achievements and milestones.

6. Huawei actively participates and drives core telecommunications standards in leading technical organizations, such as 3GPP, IEEE, IETF, ITU-T, GSMA, ETSI, CCSA, IMTC, SIP Forum, MSF, NGMN, OMA, 3GPP2, etc. Huawei is a member of 400 Standard Setting Organizations ("SSOs"), industry alliances, and open source communities. Thousands of contributions submitted by Huawei were approved by these organizations. In addition, Huawei has obtained dozens of leadership positions in these core network technology related SSOs, such as chairs, rapporteurs, and editors.

7. Huawei has led the development of technologies that improve the individuation and reliability of wireless networks, while reducing the operating costs and improving the efficiency of wireless networks. These technologies enable, for example, efficient initial access to a wireless network, improving multicast communications over a wireless network, and improving the efficiency and variety of charging solutions. These features can be and generally are implemented on various networking products or software components, such as a User Equipment ("UE"), a Multi-cell/Multicast Coordination Entity ("MCE"), a Broadcast Multicast-Service Center ("BM-SC"), a Serving Gateway ("SGW"), a Packet Data Network Gateway ("PGW"), a Mobility Management Entity ("MME"), an Evolved Node B ("eNodeB"), a Radio Network Controller ("RNC"), Flow Based Charging ("FBC") and/or Policy and Charging Control ("PCC") system/ architecture related components, such as Charging Rules Function (CRF), Traffic Plane Function (TPF), Policy and Charging Rules Function ("PCRF"), Policy and Charging Enforcement Function ("PCEF"), a Serving GPRS Support Node ("SGSN"), and a Gateway GPRS Support Node ("GGSN").

8. In paragraph 1 of its Amended Complaint in Case No. 2:18-cv-00439-JRG, D.I. 13, Harris avers that Harris Corporation is a Delaware corporation duly organized and existing

under the laws of the state of Delaware with its principal place of business at 1025 West NASA Boulevard, Melbourne, Florida.

9. On information and belief, L3 is a Delaware corporation duly organized and existing under the laws of the state of Delaware with its principal place of business at 1025 West NASA Boulevard, Melbourne, FL 32919. On information and belief, on June 29, 2019, Harris and L3 completed a previously announced merger of equals. On information and belief, as a result of that merger, L3 is a direct, wholly owned subsidiary of Harris.

JURISDICTION AND VENUE

10. This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331, 1338(a), 2201, and 2202 as Huawei counterclaims against Harris in Case No. 2:18-cv-00439-JRG pursuant to the patent laws of the United States, Title 35, United States Code, and the Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202. An actual, substantial and continuing justiciable controversy exists between Harris and Huawei based on Harris having filed an Amended Complaint in Case No. 2:18-cv-00439-JRG against Huawei alleging infringement of U.S. Patent Nos. 6,535,227, 6,958,986, 6,980,537, 7,027,426, 7,224,678, 7,327,690, and 7,440,572, and the present patent infringement dispute in Case No. 2:19-cv-222-JRG involving the ’325 Patent, the ’892 Patent, the ’575 Patent, the ’851 Patent, and the ’226 Patent.

11. Harris has submitted to personal jurisdiction of this Court through the filing of its Amended Complaint against Huawei in Case No. 2:18-cv-00439-JRG.

12. Upon information and belief, this Court has personal jurisdiction over L3 due to its systematic contacts with this judicial District through at least L3’s advertising and sales of the products identified in this complaint in this District, and through L3’s direct corporate relationship with Harris.

13. Venue is proper in this Court because Harris filed the Complaint in Case No. 2:18-cv-00439-JRG. Harris exercises control over L3, which is a direct, wholly owned subsidiary of Harris. L3 has committed acts of infringement and has a regular and established place of business in this judicial District located at 6900 K Ave, Plano, TX 75074. Both Harris and L3 committed and continue to commit acts of infringement, including providing electronic products that are used, offered for sale, sold, and have been purchased in the state of Texas, including in the Eastern District of Texas. Upon information and belief, following its merger with Harris, all of L3's public-facing websites have been rebranded as "L3Harris" websites.

HUAWEI PATENTS

14. United States Reissue Patent No. RE44,325 ("the '325 Patent"), titled "Method of Providing a Remote Power Feed to a Terminal in a Local Area Network, and Corresponding Remote Power Feed Unit, Concentrator, Repeator, and Terminal," was duly and lawfully issued June 25, 2013. Huawei Technologies is the owner of all right, title, and interest in the '325 Patent. A true and correct copy of the '325 Patent is attached hereto as Exhibit 1.

15. The claims of the '325 Patent are not directed to basic tools of scientific and technological work, fundamental economic practices, or the use of an abstract idea or mathematical formula.

16. Rather, the '325 Patent describes problems and shortcomings in the field of power distribution and networking, and claims novel and inventive technological improvements and solutions to such problems and shortcomings. For example, the '325 Patent describes the difficulty of providing power to a remote terminal over a communication line. Transmitting supply power over the same set of wires used to transmit data can be advantageous, allowing devices to operate even if a local power source isn't available. This transmission, however, can damage a terminal unless it is specially designed to be powered over the communication line. To

address this problem, the ’325 Patent generally describes novel methods for safely testing a terminal, determining if it is designed to be powered remotely, and supplying power only if it is safe to do so. In an exemplary embodiment, the ’325 Patent describes a system that is configured to transmit low energy test signals to the terminal device. The system will then determine the impedance of the terminal. The system will transmit power if the detected impedance is indicative of a terminal that is designed to operate on remote power.

17. United States Patent No. 8,416,892 (“the ’892 Patent”), titled “Method and apparatus of transmitting a random access preamble,” was duly and lawfully issued April 9, 2013. Huawei Technologies is the owner of all right, title, and interest in the ’892 Patent. A true and correct copy of the ’892 Patent is attached hereto as Exhibit 2.

18. The claims of the ’892 Patent are not directed to basic tools of scientific and technological work, fundamental economic practices, or the use of an abstract idea or mathematical formula.

19. Rather, the ’892 Patent describes a random access procedure that a mobile device and base station use to synchronize with and connect to each other in a mobile telecommunication system. As part of this procedure, a mobile device transmits a random access preamble (“RAP”) that a base station detects and uses to estimate the time of arrival of an uplink signal. The set of RAPs must be carefully designed to have good autocorrelation and cross-correlation properties in order to have good detection properties. The ’892 Patent discloses an improved synchronization process that involves transmitting RAPs with desirable properties. For example, the RAPs of the ’892 Patent are generated using a cyclic shift, selected from a pre-defined set of cyclic shift increments.

20. The ’892 Patent addresses a problem rooted in mobile communications technology: “selecting an appropriate limited set of ZCZ lengths, in order to ensure a small and limited signaling overload.” ’892 Patent at 3:20–23. Prior systems were deficient because they either selected only one of fixed set of preambles without modification, or cyclically shifted one preamble but without any restriction on the number of possible cyclic shifts. *See, e.g., Id.* at 3:9-14. The claimed solution of the ’892 Patent resulted in decreased interference and low signal overload.

21. United States Patent No. 8,798,575 (“the ’575 Patent”), titled “Method for improving service data flow based charging and system thereof,” was duly and lawfully issued August 5, 2014. Huawei Technologies is the owner of all right, title, and interest in the ’575 Patent. A true and correct copy of the ’575 Patent is attached hereto as Exhibit 3.

22. The claims of the ’575 Patent are not directed to basic tools of scientific and technological work, fundamental economic practices, or the use of an abstract idea or mathematical formula.

23. Rather, the ’575 Patent describes methods and systems for improving service data flow based charging. The ’575 Patent provides a solution whereby a charging rules function (“CRF”) dynamically provides address information of a charging system to a traffic plane function (TPF) so that the TPF can address the charging system corresponding to the address information.

24. The claims of the ’575 Patent are directed to a manner in which a CRF and TPF communicate to facilitate access of charging system by the TPF. The claimed solutions of the ’575 Patent override the routine and conventional manner in which prior systems accessed

charging systems. For example, instead of pre-configuring address information of a charging system, the CRF of '575 Patent's system dynamically sends address information to the TPF.

25. The claimed solution of the '575 Patent addresses a problem rooted in wireless networking technology: how to efficiently direct a TPF to a charging system. The '575 Patent's claimed solution, like the problem it addresses, is also rooted in wireless networking technology, and is directed to how the CRF provides the TPF with the charging rules and address information about the charging system to facilitate flexible charging of services provided in a cellular telecommunications system. This interaction between the CRF and TPF maximizes the efficiency of the network.

26. United States Patent No. 9,838,851 ("the '851 Patent"), titled "Subframe Processing Method and Device," was duly and lawfully issued December 5, 2017. Huawei Technologies is the owner of all right, title, and interest in the '851 patent. A true and correct copy of the '851 Patent is attached hereto as Exhibit 4.

27. The claims of the '851 Patent are not directed to basic tools of scientific and technological work, fundamental economic practices, or the use of an abstract idea or mathematical formula.

28. Rather, the '851 Patent addresses problems and shortcomings in the field of mobile communications, and subframe processing in particular, and claims novel and inventive technological solutions to such problems and shortcomings. For example, the '851 Patent describes the limitations in the prior art Multimedia Broadcast Multicast Service (MBMS) system where the loss of at least two consecutive MBMS data packets in a synchronization sequence or all type 0 PDUs that indicated transmission completion of a synchronization sequence would cause the evolved NodeB (eNB) to generate incorrect Dynamic Schedule

Information (DSI) in a transmission between the eNB and user equipment (UE), which could interfere with other eNBs and cause incorrect data reception by the UE connected to the network.

29. The technology recited in the claims of the ’851 Patent specifies how to prevent the distribution of incorrect DSI and increase the quality of synchronization during the transmission of MBMS data packets in a MBMS Single Frequency Network (MBSFN)—a result that overrides the routine and conventional practice of transmitting incorrect DSI when data packets are lost during an MBMS transmission. For example, instead of the eNB in the MBSFN area transmitting incorrect DSI when two or more consecutive packets in a synchronization sequence are lost in transmission from a broadcast multicast-service center (BM-SC) to the eNB, as an eNB operating in the normal, expected manner would do, the claimed subframe processing method sets a subframe with DSI to null when an eNB cannot determine the transmission position of the at least two lost consecutive MBMS data packets in the Dynamic Schedule Period (DSP).

30. The claims of the ’851 Patent address problems arising out of the field of MBMS transmission. For example, the ’851 Patent explains how, in the art at the time, eNBs may transmit incorrect DSI when the eNB does not receive at least two consecutive packets and the eNB cannot determine the positions of these packets.

> In the prior art, transmission between a B[M]-SC and an eNB is based on the Internet Protocol (IP), which may cause loss of MBMS data packets or a type 0 PDU. If an eNB in an MBSFN area cannot normally receive at least two consecutive MBMS data packets in a synchronization sequence or all type 0 PDUs that indicate transmission completion of a synchronization sequence, the eNB generates incorrect DSI, which may interfere with other eNBs and cause incorrect data receiving of the UE.

’851 Patent at 2:35-43.

> [I]f the eNB predicts the length of each MBMS data packet and generates DSI according to the prior art, the DSI may be incorrect and may be different from DSI generated by other eNBs in other MBSFN areas. Consequently, the incorrect

> DSI interferes with other eNBs, and a UE may incorrectly receive data or even cannot receive data.

'851 Patent at 5:24-30.

31. The '851 Patent solved this technological problem through a technical solution. The '851 Patent explains, for example, that the technological approach of setting a subframe to null provided a solution to the technological problem mentioned above.

> In embodiments of the present invention, when an access network (AN) device (such as an eNB) finds that consecutive MBMS data packets are lost and/or a type 0 PDU group is lost, a subframe that is used to transmit DSI may be null to prevent the eNB from transmitting incorrect DSI which may interfere with other eNBs and cause incorrect data receiving of a UE.

'851 Patent at 3:17-23.

> Compared with the method in which the eNB transmits no data packet or transmits incorrect DSI, the method according to this embodiment enables the UE to receive more data, and enables the eNB to transmit data more efficiently.

'851 Patent at 6:45-49.

32. United States Patent No. 10,117,226 ("the '226 Patent"), titled "Method, Apparatus, and System for Transmission Control of Multimedia Broadcast Multicast Service Data," was duly and lawfully issued on October 30, 2018. Huawei Technologies is the owner of all right, title, and interest in the '226 Patent. A true and correct copy of the '226 Patent is attached hereto as Exhibit 5.

33. The claims of the '226 Patent are not directed to basic tools of scientific and technological work, fundamental economic practices, or the use of an abstract idea or mathematical formula.

34. Rather, the '226 Patent addresses problems and shortcomings in the field of mobile communications, and multimedia broadcast multicast service data in particular, and claims novel and inventive technological solutions to such problems and shortcomings. For

example, the ’226 Patent describes limitations in the prior art transmission control methods and systems in an MBMS system, in which “multiple eNBs in a certain area need to send the completely same MBMS service data in the same sub-frame” (’226 Patent at 1:59-60), where eNBs would send MBMS service data at different times, based on Multicast Control Channel contents, when the multi-cell/multicast coordination entity (MCE) updates the MCCH contents.

35. The claims of the ’226 Patent specify technology for implementing transmission control for simultaneously transmitting MBMS data when the broadcast of data is suspended or reinstated—a result that overrides the routine and conventional practice of suspending or reinstating data transmission in an MBMS system. For example, instead of allowing eNBs in the same MBSFA range to suspend or resume MBMS service data transmission at different times, the ’226 Patent provides uniform transmission control of the MBMS data through modification of the MCCH in a specific way that requires synchronous suspension or resumption of MBMS service data transmission.

36. The claims of the ’226 Patent address technical problems arising out of the field of MBMS transmission. For example, the ’226 Patent explains how, in the art at the time, various eNBs would transmit MBMS at different times, resulting in interference in services, a problem unique to wireless networks.

> Although each eNB in the same MBSFA synchronously updates the MCCH message in the same MCCH modification period, the prior art does not have a unified method used for determining the time of transmission control for the corresponding MBMS service data, so that the eNB usually randomly determines the time of transmission control for the corresponding MBMS service data, and as a result, interferences in the service may be caused.

’226 Patent at 8:11-19.

37. The ’226 patent solves this technological problem through the technological solution of coordinating the transmission of MBMS service data by multiple eNBs so that they overlap completely.

38. Harris has shown unwillingness to license the Huawei Asserted Patents on fair, reasonable and non-discriminatory terms. On December 5, 2018, Huawei sent Harris a presentation setting forth Huawei’s extensive patent portfolio, including its LTE patents and PoE patents. On December 21, 2018, Huawei resent that presentation, and also sent Harris a list of selected essential patents. On March 31, 2019, Huawei sent a letter to Harris reminding Harris of the existence of Huawei’s LTE and PoE standard essential patent portfolios, and encouraging Harris to enter into good faith licensing discussions about Huawei’s patents. Harris did not respond to Huawei’s March 31, 2019 letter.

INFRINGING PRODUCTS AND ACTIVITIES

39. On information and belief, Harris makes, uses, sells, and/or offers to sell in the United States, and/or imports into the United States numerous networking products compatible with IEEE 802.3af, 802.3at, 802.3bt, or similar industry standards for providing power to network devices via Ethernet cables (Power over Ethernet (“POE”) standards). These products include the Harris RF-7800W-IU200 Network Interface Unit, the Harris RF-7800W-PS104 Rugged Power Supply, the Harris Falcon III RF-7850A-TM001 Roll-on/Roll-off Airborne System and other similar devices that comply with one or more POE standards in the same way.

40. On information and belief, L3 makes, uses, sells, and/or offers to sell in the United States, and/or imports into the United States numerous networking products compatible with PoE standards. These products include the L3 MFT1000 and the L3 GCS Secure Mobile Office (SMO), and other similar devices that comply with one or more POE standards in the same way.

41. On information and belief, the Harris RF-7800W-IU200 Network Interface Unit is capable of providing power to devices in compliance with the IEEE 802.3at standard. For example, the Harris RF-7800W-IU200 Network Interface Unit data sheet specifies that it includes "802.3 at POE for deployment flexibility and integration with networked devices." *See* RF-7800W-IU200 Data Sheet, https://www.harris.com/sites/default/files/downloads/solutions/rf-7800w-iu200-network-interface-unit-datasheet.pdf. The data sheet also specifies that the unit includes a "Data/Ethernet" interface with four "Rugged RJ-45 ports with PoE," and allows "up to four Harris RF-7800W HCLOS radios to be deployed in the harshest scenarios." *Id.*

42. On information and belief, the Harris RF-7800W-PS104 Rugged Power Supply and Harris Falcon III RF-7850A-TM001 Roll-on/Roll-off Airborne System are capable of providing power to devices in accordance with a POE standard. For example, the Harris RF-7800W-IU200 Network Interface Unit data sheet specifies that the unit is "designed for use with the RF-7800W family of radios" and includes two Ethernet ports "with POE++." *See* RF-7800W-PS104 Rugged Power Supply Data Sheet, https://www.harris.com/sites/default/files/rf-7800w-ps104-rugged-power-supply-specifications.pdf.

43. The term "PoE++" is an industry marketing term. Prior to the release of the 802.3bt standard, several companies often used the term to refer to PoE systems that exceeded the 30 Watt limit imposed under the 802.3at standard. Upon information and belief, the POE++ system described in connection with the Harris RF-7800W-PS104 Rugged Power Supply includes a similar method as set forth in the IEEE standards (e.g., the IEEE 802.3at standard) for detecting devices capable of being powered remotely.

44. On information and belief, the "L3 Telemetry & RF Products' (L3 T&RF) MFT1000 is a network-attached IEEE-802.3at Ethernet multi-function telemetry unit providing a

complete PCM telemetry system for one or two data streams." *See* MFT1000 Multi-Function Telemetry Unit Data Sheet, https://www2.l3t.com/trf/pdf/datasheets/ML638_MFT1000.pdf. The datasheet further describes the MFT1000 as "Power over Ethernet enabled" and a "PoE+ powered device." *Id.* In addition, the datasheet lists "IEEE-802.3at" in its specifications. *Id.*

45. On information and belief, the L3 GCS Secure Mobile Office (SMO) includes a "PoE port." *See* Secure Mobile Office (SMO) Datasheet, https://www.globalcoms.com/media/34643/securemobileoffice_revb.pdf. In addition, the datasheet indicates that the system includes a "4 Port PoE injector." *Id.*

46. On information and belief, Harris makes, uses, sells, and/or offers to sell in the United States, and/or imports into the United States numerous products compliant with 4G LTE mobile communication networks ("LTE Products"). These products include mobile communication devices capable of connecting to an LTE communications network, including user equipment (UE), and equipment supporting the infrastructure of an LTE communications network, including base stations (e.g., eNodeBs, eNBs), evolved packet core (EPC) components such as MMEs, SGWs, PGWs and PCRFs.

47. On information and belief, Harris's mobile communication LTE products include XL Radios, Tactical 4G LTE Radios, and Vehicle Based Radios. Harris advertises that its XL Radios, including the XL-185P Single Band Portable Radio, and XL-200P Multiband Portable Radio, support LTE functionality. *See, e.g.*, https://www.harris.com/sites/default/files/downloads/product_line/xl-family-portable-radios-brochure.pdf. Harris advertises that Vehicle Based Radios, including the TM9300-DMR and TM9400 P25, provide connectivity through LTE. *See, e.g.*, https://www.harris.com/sites/default/files/unified-vehicle-network-computing-platform.pdf.

Harris advertises that its Tactical 4G LTE radios support LTE. *See, e.g.*, https://www.harris.com/solution-grouping/tactical-4g-lte-radios. Harris has stated that mobile devices such as the RF-3590 LTE Tablet support LTE. *See, e.g.*, https://www.harris.com/press-releases/2012/02/harris-corporation-introduces-ruggedized-tablet-for-defense-and-public-safety. Upon information and belief, Harris makes, makes, uses, sells, and/or offers to sell in the United States, and/or imports into the United States cellular site simulator devices compliant with 4G LTE communications networks. For example, the manual for the Gemini describes support for LTE. *See, e.g.*, https://www.documentcloud.org/documents/3105793-Gemini-3-3-Quick-Start-Guide.html#document/p1

FIRST CAUSE OF ACTION
(Infringement of U.S. Reissue Patent No. RE44,325)

48. Huawei incorporates by reference the allegations set forth in the foregoing paragraphs of its Amended Complaint.

49. Harris makes, uses, sells, and/or offers to sell in the United States, and/or imports into the United States products that directly infringe the ’325 Patent, including but not limited to the Harris RF-7800W-IU200 Network Interface Unit, the Harris RF-7800W-PS104 Rugged Power Supply, the Harris Falcon III RF-7850A-TM001 Roll-on/Roll-off Airborne System, and other similar devices that comply with Power-Over-Ethernet (POE) standards (the “Harris ’325 Accused Products”).

50. L3 makes, uses, sells, and/or offers to sell in the United States, and/or imports into the United States products that directly infringe the ’325 Patent, including but not limited to the MFT1000 and GCS Secure Mobile Office (SMO) (the “L3 ’325 Accused Products”). The Harris ’325 Accused Products and the L3 Accused Products (collectively, the “’325 Accused Products”)

infringe one or more claims of the '325 Patent, including without limitation, claim 30 of the '325 Patent.

51. As an example, the '325 Accused Products provide a remote power feed to a terminal in a local area network. For example, the RF-7800W-IU200, RF-7800W-PS104, RF-7850A-TM001, MFT1000, and GCS Secure Mobile Office (SMO) are capable of providing power throughout a network to feed power to remote terminals in a manner compliant with one or more POE standards. The RF-7800W-IU200 "delivers secure voice communications with other networked NIUs through a standard headset," can connect "up to four Harris RF-7800W HCLOS radios," and Harris advertises that the "Power over Ethernet and a fiber optic connection keeps users connected while separated from their communications equipment at distances up to 2 km." RF-7800W-IU200 Data Sheet, https://www.harris.com/sites/default/files/downloads/solutions/rf-7800w-iu200-network-interface-unit-datasheet.pdf. The data sheet also states that the RF-7800W-IU200 includes "802.3 at PoE for deployment flexibility and integration with networked devices." Similarly, the RF-7800W-PS104 "is a rugged power supply designed for use with the RF-7800W family of radios" that includes "two Power over Ethernet ports." RF-7800W-PS104 Rugged Power Supply Data Sheet, https://www.harris.com/sites/default/files/rf-7800w-ps104-rugged-power-supply-specifications.pdf. Harris advertises that the RF-7850A-TM001 "standard kit includes . . . Ethernet switch with PoE." https://www.harris.com/sites/default/files/downloads/solutions/rf-7850a-tm001-roll-on-roll-off-airborne-system-datasheet.pdf. And L3 advertises that the MFT1000 "is a network-attached IEEE-802.3at Ethernet multi-function telemetry unit" that is "Power over Ethernet enabled," is compliant with "IEEE-802.3at," and "is a Power over Ethernet (PoE+) enabled network interface designed to eliminate the need for separate power cabling to

network-attached devices." MFT1000 Multi-Function Telemetry Unit Data Sheet, https://www2.l3t.com/trf/pdf/datasheets/ML638_MFT1000.pdf. L3 advertises that the GCS Secure Mobile Office (SMO) includes a "PoE port" and a "4 Port PoE injector," and it "provides portable office and encrypted IP voice and data communication utilizing a local area network (LAN)," such as a "RJ-45 LAN port." Secure Mobile Office (SMO) Datasheet, https://www.globalcoms.com/media/34643/securemobileoffice_revb.pdf.

52. The '325 Accused Products produce at least first and second test signals on at least two conductors of a line for connecting the local area network to a remote terminal, the test signals having an energy such that the terminal cannot be damaged under any circumstances. For example, upon information and belief, in compliance with POE standards, such as the IEEE 802.3at standard, the '325 Accused Products detect compliant, powered devices (PD) prior to supplying power. *See* IEEE 802.3at at pp. 37-39. The '325 Accused Products "probes the link section in order to detect a valid PD detection signature" prior to supplying power. *See Id.* at p. 37. To evaluate the presence of the PD, the '325 Accused Products make at least two measurements by applying test signals with voltages bounded between 2.8 V and 10.0 V and with current no greater than 0.005 amps. The '325 Accused Products measure the resulting currents. *See Id.* at pp. 38-39. Upon information and belief, the energy of a signal with 10 volts and 0.005 amps prevents terminal damage. The '325 Accused Products send the test signals over at least two conductors that carry signals and power to a PD according to one of the following arrangements. *See Id.* at pp. 24-38.

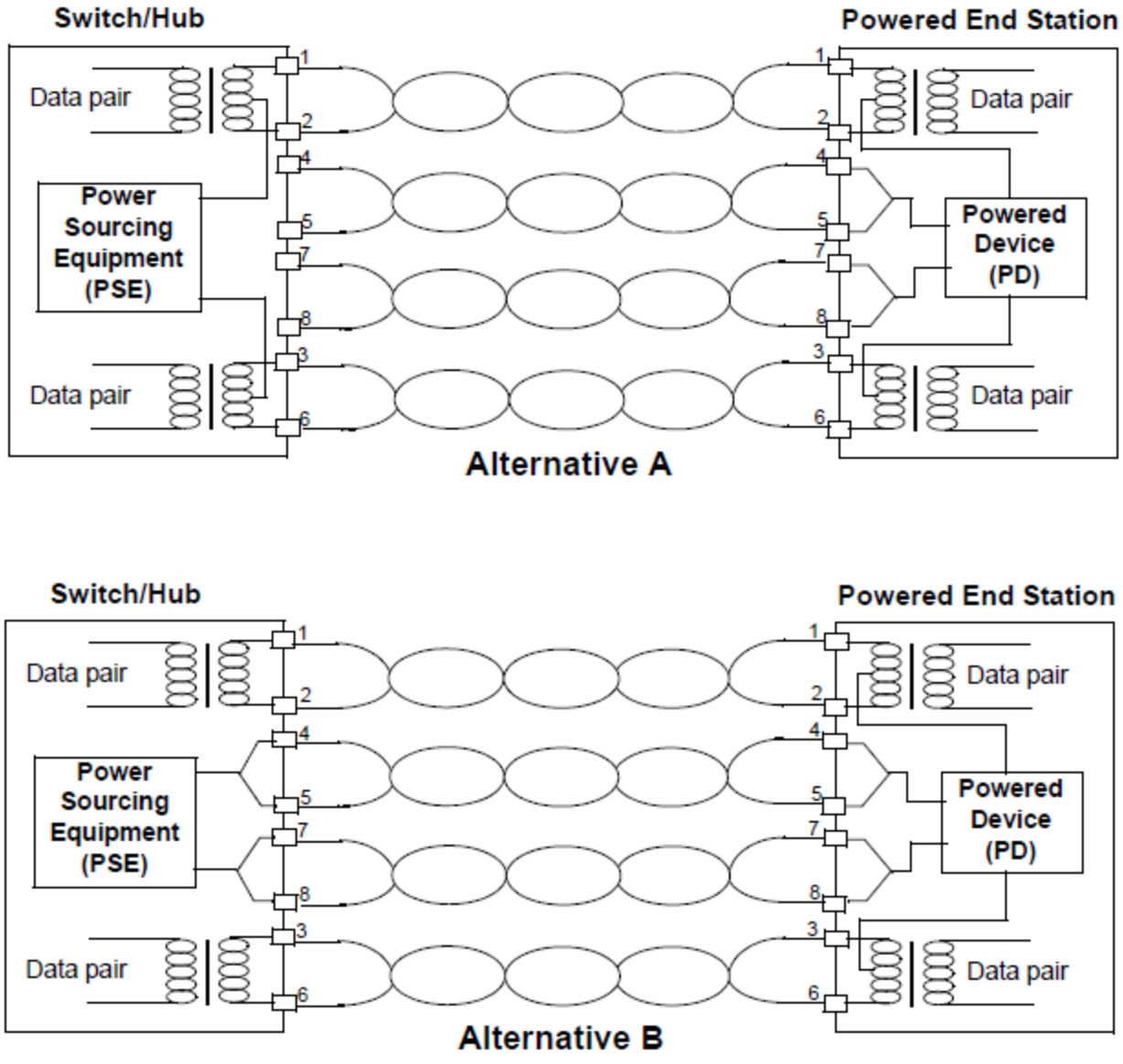

Figure 33–4—10BASE-T/100BASE-TX Endpoint PSE location overview

53. The ’325 Accused Products detect the presence of a remote terminal adapted to receive a remote power feed by detecting the presence of predetermined impedance in the remote terminal in compliance with a predetermined impedance threshold, on the basis of a current created by at least one of the test signals in the line. For example, on information and belief, the ’325 Accused Products calculate a resistance and capacitance from voltage and current

measurements created from the test signals, and determines that a terminal can receive power over the network line where the resistance and capacitance are in a range defined in table 33-5. *See Id*. at p. 39 and Table 33-5 reproduced below:

Table 33–5—Valid PD detection signature electrical characteristics

Item	Parameter	Symbol	Unit	Min	Max	Additional information
1	Accept signature resistance	R_{good}	kΩ	19.0	26.5	—
2	Accept signature capacitance	C_{good}	µF		0.150	—
3	Signature offset voltage tolerance	V_{os}	V	0	2.00	—
4	Signature offset current tolerance	I_{os}	µA	0	12.0	—

54. The ’325 Accused Products send a power supply current in the line when the presence of a terminal adapted to receive a remote power feed is detected. For example, the ’325 Accused Products apply operating power to the terminal when the ’325 Accused Products successfully detect a PD requesting power. *See Id.* at pp. 37.

55. By making, using, offering for sale, and/or selling products in the United States, and/or importing them into the United States, including but not limited to the Harris ’325 Accused Products, Harris has injured Huawei and is liable to Huawei for directly infringing one or more claims of the ’325 Patent, including without limitation claim 30, pursuant to 35 U.S.C. § 271(a).

56. Harris also infringes the ’325 Patent under 35 U.S.C. § 271(b) & (c).

57. By making, using, offering for sale, and/or selling products in the United States, and/or importing them into the United States, including but not limited to the L3 ’325 Accused Products, L3 has injured Huawei and is liable to Huawei for directly infringing one or more claims of the ’325 Patent, including without limitation claim 30, pursuant to 35 U.S.C. § 271(a).

58. L3 also infringes the ’325 Patent under 35 U.S.C. § 271(b) & (c).

59. Harris knowingly encourages and intends to induce infringement of the ’325 Patent by making, using, offering for sale, and/or selling products in the United States, and/or importing them into the United States, including but not limited to the Harris ’325 Accused Products, with knowledge and specific intention that such products will be used by Harris or its customers in a network that infringes the ’325 patent, as shown by Harris’s documentation suggesting that the products be used to connect and power RF-7800W radios such as the RF-7800W-IU200 and the RF-7800W-PS104 data sheet referenced above.

60. L3 knowingly encourages and intends to induce infringement of the ’325 Patent by making, using, offering for sale, and/or selling products in the United States, and/or importing them into the United States, including but not limited to the L3 ’325 Accused Products, with knowledge and specific intention that such products will be used by L3 or its customers in a network that infringes the ’325 patent, as shown by L3 documentation suggesting that the MFT1000 and GCS Secure Mobile Office (SMO) include Power over Ethernet compatibility as described in data sheets referenced above.

61. Harris also contributes to the infringement of the ’325 Patent. Harris makes, uses, sells, and/or offers to sell products in the United States, and/or imports them into the United States, including but not limited to the Harris ’325 Accused Products, knowing that those products constitute a material part of the claimed invention, that they are especially made or adapted for use in infringing the ’325 Patent, and that they are not staple articles or commodities of commerce capable of substantial non-infringing use.

62. L3 also contributes to the infringement of the ’325 Patent. L3 makes, uses, sells, and/or offers to sell products in the United States, and/or imports them into the United States, including but not limited to the L3 ’325 Accused Products, knowing that those products

constitute a material part of the claimed invention, that they are especially made or adapted for use in infringing the ’325 Patent, and that they are not staple articles or commodities of commerce capable of substantial non-infringing use.

63. Harris knew of Huawei’s patent portfolio before the filing of this action and was alerted by Huawei’s December 5, 2018 email that Huawei’s portfolio included a set of patents essential to the PoE standard. Upon information and belief, Harris knew of the ’325 patent or was willfully blind to the ’325 patent. Also, Harris has had knowledge of the ’325 Patent at least by virtue of the filing of the original Complaint.

64. Upon information and belief, L3 has had knowledge of the ’325 Patent as a result of its pre- and post-merger relationship with Harris and Harris’s involvement in the present lawsuit, and at least by virtue of the filing of this Amended Complaint.

65. Harris’s infringement of the ’325 Patent has been and continues to be deliberate and willful, and this is therefore an exceptional case warranting an award of enhanced damages and attorneys’ fees pursuant to 35 U.S.C. §§ 284-285.

66. L3’s infringement of the ’325 Patent has been and continues to be deliberate and willful, and this is therefore an exceptional case warranting an award of enhanced damages and attorneys’ fees pursuant to 35 U.S.C. §§ 284-285.

67. As a result of Harris’s infringement of the ’325 Patent, Huawei has suffered monetary damages, and seeks recovery in an amount adequate to compensate for Harris’s infringement, but in no event less than a reasonable royalty with interest and costs.

68. As a result of L3’s infringement of the ’325 Patent, Huawei has suffered monetary damages, and seeks recovery in an amount adequate to compensate for L3’s infringement, but in no event less than a reasonable royalty with interest and costs.

SECOND CAUSE OF ACTION
(Infringement of U.S. Patent No. 8,416,892)

69. Huawei realleges and incorporates by reference the allegations set forth in the foregoing paragraphs of its Amended Complaint.

70. Harris makes, uses, sells, and/or offers to sell in the United States, and/or imports into the United States products that directly infringe the '892 Patent, including but not limited to Harris's Tactical 4G LTE Radios, and Harris's LTE-capable User Equipment (UE) mobile devices, such as the XL-185M, the XL-185P, the RF3590 LTE Tablet, and the XL-200P, and any other Harris products practicing the LTE standard (the "'892 Accused Products"). Harris's '892 Accused Products infringe one or more claims of the '892 Patent, including without limitation, claims 10 and 20 of the '892 Patent.

71. For example, 3GPP TS 36.213 (including v1.2.0, and all subsequent releases and versions) of the LTE standard practiced by the '892 Accused Products requires that a mobile device select and transmit a random access preamble from a defined set. *See, e.g.*, 3GPP TS 36.213 v8.5.0, Section 6 ("Random access procedure"). 3GPP 36.211 (including v8.1.0, and all subsequent releases and versions) of the LTE standard uses the same set of random access preambles as claims 10 and 20 of the '892 patent. See, e.g., 3GPP TS 36.211 v8.5.0, Section 5.7.2 & Table 5.7.2-2. Table 5.7.2-2 of 3GPP TS 36.211 v8.5.0 requires creating the preambles in the same manner and using the exact same set of cyclic shift increments as claimed in the '892 patent: 0, 13, 15, 18, 22, 26, 32, 38, 46, 59, 76, 93, 119, 167, 279, and 419. Moreover, the random access preambles is provided with Zero Correlation Zones of length N_{CS} -1. *See, e.g.*, 3GPP TS 36.211 v8.5.0 at 39.

72. On information and belief, the '892 Accused Products that include an LTE base station, such as Harris's Tactical 4G LTE Radios, include a non-transitory computer readable

storage medium that causes a processor to estimate a time of arrival of an uplink signal that includes a random access preamble. *See, e.g.,* 3GPP TS 36.300 v8.7.0 at 29, 50. The '892 Accused Products that include an LTE base station, such as Harris's Tactical 4G LTE Radios, include a processor that transmits a time advanced based on the uplink signal time of arrival. *See, e.g.*,3GPP TS 36.300 v8.7.0 at 29.

73. By making, using, offering for sale, and/or selling products in the United States, and/or importing them into the United States, including but not limited to the '892 Accused Products, Harris has injured Huawei and is liable to Huawei for directly infringing one or more claims of the '892 Patent, including without limitation claims 10 and 20, pursuant to 35 U.S.C. § 271(a).

74. Harris also infringes the '892 Patent under 35 U.S.C. § 271(b) & (c).

75. Harris knowingly encourages and intends to induce infringement of the '892 Patent by making, using, offering for sale, and/or selling products in the United States, and/or importing them into the United States, including but not limited to the '892 Accused Products, with knowledge and specific intention that such products will be used by Harris or its customers in a network that infringes the '892 Patent. For example, Harris expressly advertises that its products can be used for LTE communications, and are "ideal" for various infringing uses. *See, e.g.*, https://www.harris.com/solution-grouping/tactical-4g-lte-radios. On information and belief, Harris also trains its customers in the use of the '892 Accused Products.

76. Harris also contributes to the infringement of the '892 Patent. Harris makes, uses, sells, and/or offers to sell products in the United States, and/or imports them into the United States, including but not limited to the '892 Accused Products, knowing that those products constitute a material part of the claimed invention, that they are especially made or adapted for

use in infringing the ’892 Patent, and that they are not staple articles or commodities of commerce capable of substantial non-infringing use.

77. Harris knew of Huawei’s patent portfolio before the filing of this action and was alerted by Huawei’s December 5, 2018 email that Huawei’s portfolio included a set of patents essential to the LTE standard. Moreover, on May 24, 2016, Huawei asserted the ’892 patent in *Huawei Technologies Co., Ltd. v. Samsung Elecs. Co. Ltd.,* Case No. 3:16-cv-02787, in the Northern District of California. Upon information and belief, Harris knew of the ’892 Patent or was willfully blind to the ’892 Patent. Also, Harris has had knowledge of the ’892 Patent at least by virtue of the filing of this Complaint.

78. Harris’s infringement of the ’892 Patent has been and continues to be deliberate and willful, and, this is therefore an exceptional case warranting an award of enhanced damages and attorneys’ fees pursuant to 35 U.S.C. §§ 284-285.

79. As a result of Harris’s infringement of the ’892 Patent, Huawei has suffered monetary damages, and seeks recovery in an amount adequate to compensate for Harris’s infringement, but in no event less than a reasonable royalty with interest and costs.

THIRD CAUSE OF ACTION
(Infringement of U.S. Patent No. 8,798,575)

80. Huawei realleges and incorporates by reference the allegations set forth in the foregoing paragraphs of its Amended Complaint.

81. Harris makes, uses, sells, and/or offers to sell in the United States, and/or imports into the United States products that directly infringe the ’575 Patent, including but not limited to Harris’s Evolved Packet Cores (EPCs) that practice and comply with the LTE standard (the “’575 Accused Products”). For example, upon information and belief, Harris uses Cisco Packet Data Network (PDN) Gateway (P-GW) as part of its EPC. Harris’s ’575 Accused Products

infringe one or more claims of the '575 Patent, including without limitation, claim 1 of the '575 Patent.

82. For example, on information and belief, Harris's '575 Accused Products include a Policy and Charging Rules Function (PCRF) that determining a charging method and charging rules in response to a credit-control request. *See, e.g.*, 3GPP TS 29.212 v8.2.0 at 11, 12, 13, 15, 17, 56-57. The PCRF provides a PCEF with the charging rules and address information of a charging system, such as an offline charging system and/or online charging system. *See, e.g.*, 3GPP TS 29.212 v8.2.0 at 17, 34, 57; 3GPP TS 29.203 v8.4.0 at 44.

83. By making, using, offering for sale, and/or selling products in the United States, and/or importing them into the United States, including but not limited to the '575 Accused Products, Harris has injured Huawei and is liable to Huawei for directly infringing one or more claims of the '575 Patent, including without limitation claim 1, pursuant to 35 U.S.C. § 271(a).

84. Harris also infringes the '575 Patent under 35 U.S.C. § 271(b) & (c).

85. Harris knowingly encourages and intends to induce infringement of the '575 Patent by making, using, offering for sale, and/or selling products in the United States, and/or importing them into the United States, including but not limited to the '575 Accused Products, with knowledge and specific intention that such products will be used by Harris or its customers in a network that infringes the '575 Patent. For example, Harris expressly advertises that its products can be used for LTE communications, and are "ideal" for various infringing uses. *See, e.g.*, https://www.harris.com/solution-grouping/tactical-4g-lte-radios. On information and belief, Harris also trains its customers in the use of the '575 Accused Products.

86. Harris also contributes to the infringement of the '575 Patent. Harris makes, uses, sells, and/or offers to sell products in the United States, and/or imports them into the United

States, including but not limited to the ’575 Accused Products, knowing that those products constitute a material part of the claimed invention, that they are especially made or adapted for use in infringing the ’575 Patent, and that they are not staple articles or commodities of commerce capable of substantial non-infringing use.

87. Harris knew of Huawei’s patent portfolio before the filing of this action and was alerted by Huawei’s December 5, 2012 email that Huawei’s portfolio included a set of patents essential to the LTE standard. Moreover, on January 15, 2015, Huawei asserted the ’575 patent in *Huawei Technologies Co., Ltd. v. T-Mobile US, Inc.*, Case No. 2:16-CV-00055, in the Eastern District of Texas. Upon information and belief, Harris knew of the ’575 Patent or was willfully blind to the ’575 Patent. Also, Harris has had knowledge of the ’575 Patent at least by virtue of the filing of this Complaint.

88. Harris’s infringement of the ’575 Patent has been and continues to be deliberate and willful, and, this is therefore an exceptional case warranting an award of enhanced damages and attorneys’ fees pursuant to 35 U.S.C. §§ 284-285.

89. As a result of Harris’s infringement of the ’575 Patent, Huawei has suffered monetary damages, and seeks recovery in an amount adequate to compensate for Harris’s infringement, but in no event less than a reasonable royalty with interest and costs.

FOURTH CAUSE OF ACTION
(Infringement of U.S. Patent No. 9,838,851)

90. Huawei realleges and incorporates by reference the allegations set forth in the foregoing paragraphs of its Amended Complaint.

91. Harris makes, uses, sells, and/or offers to sell in the United States, and/or imports into the United States products that directly infringe the ’851 Patent, including but not limited to Harris’s Tactical 4G LTE Radios and any other Harris base station/eNB products practicing the

LTE standard (the "'851 Accused Products"). Harris's '851 Accused Products infringe one or more claims of the '851 Patent, including without limitation, claim 1 of the '851 Patent.

92. As an example, the '851 Accused Products include an eNB capable of determining that at least two consecutive Multimedia Broadcast Multicast Service (MBMS) data packets to be scheduled in a Dynamic Schedule Period (DSP) have not been received. For example, the '851 Accused Products employ an "MBMS synchronization protocol," which may "carry additional information that enable eNBs to identify the timing for radio frame transmission and detecting packet loss." *See, e.g.*, 3GPP TS 25.446 V9.2.1 at 6; 3GPP TS 36.300 V9.10.0 at 87. The '851 Accused Products further determine "if two or more consecutive SYNC service data units ("SDU") within a SYNC bearer are not received by the eNB." *See, e.g.*, 3GPP TS 36.300 V9.10.0 at 90. The '851 Accused Products further use a Multicast Channel ("MCH") Scheduling Period ("MSP") where all SYNC packets in one synchronization sequence of an MBMS service have the same timestamp value, and the "MSP length is one or multiple times of the synchronisation sequence length for the MBMS services in the MCH." *See, e.g.*, 3GPP TS 36.300 V9.10.0 at 91.

93. The eNB of the '851 Accused Products further sets a first subframe to null if the eNB cannot determine the transmission position of the at least two consecutive MBMS data packets in the DSP. For example, the '851 Accused Products do not transmit in the subframe corresponding to the MSI of the MSP for which two or more consecutive SYNC SDUs within a SYNC bearer are not received by the eNB when the '851 Accused Products cannot determine the transmission positions of at least two consecutive SYNC SDUs. *See, e.g.*, 3GPP TS 36.300 V9.10.0 at 90.

94. In the ’851 Accused Products, the first subframe is used to transmit Dynamic Schedule Information (DSI) corresponding to the DSP, and the DSP includes at least the first subframe and subframes to be used to transmit the at least two consecutive MBMS data packets that have not been received. For example, the ’851 Accused Products send a first subframe that includes MSI “to indicate which subframes are used by each MTCH during the MSP,” which is “generated by the eNB and provided once at the beginning of the MSP.” *See, e.g.*, 3GPP TS 36.300 V9.10.0 at 89-90.

95. By making, using, offering for sale, and/or selling products in the United States, and/or importing them into the United States, including but not limited to the ’851 Accused Products, Harris has injured Huawei and is liable to Huawei for directly infringing one or more claims of the ’851 Patent, including without limitation claim 1, pursuant to 35 U.S.C. § 271(a).

96. Harris also infringes the ’851 Patent under 35 U.S.C. § 271(b) & (c).

97. Harris knowingly encourages and intends to induce infringement of the ’851 Patent by making, using, offering for sale, and/or selling products in the United States, and/or importing them into the United States, including but not limited to the ’851 Accused Products, with knowledge and specific intention that such products will be used by Harris or its customers in a network that infringes the ’851 patent. For example, Harris expressly advertises that its products can be used for LTE communications, and are “ideal” for various uses. *See, e.g.*, https://www.harris.com/solution-grouping/tactical-4g-lte-radios. On information and belief, Harris also trains its customers in the use of the ’851 Accused Products.

98. Harris also contributes to the infringement of the ’851 Patent. Harris makes, uses, sells, and/or offers to sell products in the United States, and/or imports them into the United States, including but not limited to the ’851 Accused Products, knowing that those products

constitute a material part of the claimed invention, that they are especially made or adapted for use in infringing the ’851 Patent, and that they are not staple articles or commodities of commerce capable of substantial non-infringing use.

99. Harris knew of Huawei’s patent portfolio before the filing of this action and was alerted by Huawei’s December 5, 2018 email that Huawei’s portfolio included a set of patents essential to the LTE standard and Huawei’s December 21, 2018 email identifying the ’851 patent explicitly. Upon information and belief, Harris knew of the ’851 patent or was willfully blind to the ’851 patent. Also, Harris has had knowledge of the ’851 Patent at least by virtue of the filing of this Complaint.

100. Harris’s infringement of the ’851 Patent has been and continues to be deliberate and willful, and, this is therefore an exceptional case warranting an award of enhanced damages and attorneys’ fees pursuant to 35 U.S.C. §§ 284-285.

101. As a result of Harris’s infringement of the ’851 Patent, Huawei has suffered monetary damages, and seeks recovery in an amount adequate to compensate for Harris’s infringement, but in no event less than a reasonable royalty with interest and costs.

FIFTH CAUSE OF ACTION
(Infringement of U.S. Patent No. 10,117,226)

102. Huawei realleges and incorporates by reference the allegations set forth in the foregoing paragraphs of its Amended Complaint.

103. Harris makes, uses, sells, and/or offers to sell in the United States, and/or imports into the United States products that directly infringe the ’226 Patent, including but not limited to Harris’s Tactical 4G LTE Radios and any other Harris base station/eNB products practicing the LTE standard (the “’226 Accused Products”). Harris’s ’226 Accused Products infringe one or more claims of the ’226 Patent, including without limitation, claim 1 of the ’226 Patent.

104. As an example, the ’226 Accused Products transmit multimedia broadcast multicast service data. In addition, the ’226 Accused Products receive, from a multi-cell/multicast coordination entity (MCE), indication information including a multicast control channel modification period when a multicast control channel is updated. For example, MBMS scheduling information is received in a message from the MCE to obtain MCCH related information. *See, e.g.*, 3GPP TS 36.443 v.10.3.0 at 31. The message includes indication information, including an “MCCH Update Time,” which may be an absolute value from which the MCCH update should be applied. *Id.* at 31, 46.

105. The ’226 Accused Products further send multimedia broadcast multicast service data in a scheduling period determined according to the indication information. For example, the eNB resumes transmission of MBMS data from the beginning of the Modification Period indicated by the MCCH Update Time. *See, e.g.*, 3GPP TS 36.300 v.10.5.0 at 106.

106. In the ’226 Accused Products, the scheduling period is a same scheduling period in which another base station resumes sending the multimedia broadcast multicast service data in a same multimedia broadcast multicast service single frequency network (MBSFN) area. For example, within an MBSFN synchronization area, “all eNodeBs can be synchronized and perform MBSFN transmissions” that are “co-ordinated to achieve an MBSFN Transmission.” 3GPP TS 36.300 v.10.5.0 at 84.

107. By making, using, offering for sale, and/or selling products in the United States, and/or importing them into the United States, including but not limited to the ’226 Accused Products, Harris has injured Huawei and is liable to Huawei for directly infringing one or more claims of the ’226 Patent, including without limitation claim 1, pursuant to 35 U.S.C. § 271(a).

108. Harris also infringes the ’226 Patent under 35 U.S.C. § 271(b) & (c).

109. Harris knowingly encourages and intends to induce infringement of the '226 Patent by making, using, offering for sale, and/or selling products in the United States, and/or importing them into the United States, including but not limited to the '226 Accused Products, with knowledge and specific intention that such products will be used by Harris or its customers in a network that infringes the '226 patent. For example, Harris expressly advertises that its products can be used for LTE communications, and are "ideal" for various infringing uses. *See, e.g.*, https://www.harris.com/solution-grouping/tactical-4g-lte-radios.

110. Harris also contributes to the infringement of the '226 Patent. Harris makes, uses, sells, and/or offers to sell products in the United States, and/or imports them into the United States, including but not limited to the '226 Accused Products, knowing that those products constitute a material part of the claimed invention, that they are especially made or adapted for use in infringing the '226 Patent, and that they are not staple articles or commodities of commerce capable of substantial non-infringing use.

111. Harris knew of Huawei's patent portfolio before the filing of this action and was alerted by Huawei's December 5, 2018 email that Huawei's portfolio included a set of patents essential to the LTE standard. Upon information and belief, Harris knew of the '226 patent or was willfully blind to the '226 patent. Also, Harris has had knowledge of the '226 Patent at least by virtue of the filing of this Complaint.

112. Harris's infringement of the '226 Patent has been and continues to be deliberate and willful, and, this is therefore an exceptional case warranting an award of enhanced damages and attorneys' fees pursuant to 35 U.S.C. §§ 284-285.

113. As a result of Harris's infringement of the '226 Patent, Huawei has suffered monetary damages, and seeks recovery in an amount adequate to compensate for Harris's infringement, but in no event less than a reasonable royalty with interest and costs.

DEMAND FOR JURY TRIAL

Huawei hereby demands a trial by jury of all issues so triable in this action.

PRAYER FOR RELIEF

Huawei respectfully requests this Court grant relief as follows:

A. Judgment that Defendants have infringed one or more claims of each of the Huawei Asserted Patents in this litigation pursuant to 35 U.S.C. §§ 271(a), 271(b), 271(c) and/or 271(g) and that Defendants are liable for damages caused by such infringement;

B. A judicial determination of the conditions for future infringement such as an ongoing royalty;

C. Judgment requiring Defendants to make an accounting of damages resulting from Defendants' infringement of the Huawei Asserted Patents;

D. Judgment awarding Huawei its damages resulting from Defendants' infringement of the Huawei Asserted Patents, and increasing such damages pursuant to 35 U.S.C. § 284 because of the willful and deliberate nature of Defendants' conduct;

E. Judgment requiring Defendants to pay Huawei's costs and expenses, along with pre-judgment and post-judgment interest, for Defendants' infringement of each of the Huawei Asserted Patents;

F. An order that this case is "exceptional" pursuant to 35 U.S.C. § 285, entitling Huawei to an award of its reasonable and necessary attorneys' fees, expenses, and costs, and pre-judgment interest thereon;

G. Grant to Huawei such other and further relief as the Court deems just and proper.

Dated: August 29, 2019

/s/ Melissa R. Smith

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a)(3) on August 29, 2019.

/s/ Melissa R. Smith
Melissa R. Smith
Attorneys for Plaintiff

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