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UNITED STATES DISTRICT COURT

FOR THE SOUTHERN DISTRICT OF CALIFORNIA

U-BLOX AG, U-BLOX SAN DIEGO, INC., AND U-BLOX AMERICA, INC.,

Plaintiffs,

v.

KONINKLIJKE KPN N.V.

Defendants.

Case No. '21CV1220 BAS AGS

COMPLAINT FOR:

(1) Breach Of Contract;
(2) Declaratory Judgment;
(3) Antitrust Monopolization In Violation Of Section 2 Of The Sherman Act;
(4) Declaratory Judgment of Unenforceability of U.S. Patent No. 5,930,250; and
(5) Declaratory Judgment of Unenforceability of U.S. Patent No. 9,014,667.

Plaintiffs u-blox AG, u-blox San Diego, Inc., and u-blox America, Inc. (collectively, "u-blox" or "Plaintiffs"), by and through the undersigned counsel, file this Complaint against Koninklijke KPN N.V. ("KPN" or "Defendant") as follows.

INTRODUCTION

1. u-blox, a leading fabless semiconductor provider of embedded positioning and wireless communication products, brings this lawsuit against KPN because of KPN's refusal and failure to license its alleged standard essential patents ("SEPs") on fair, reasonable, and non-discriminatory (also known as "FRAND") terms and conditions, and to prevent and restrain KPN's anticompetitive conduct and other violations of the law.

2. KPN owns and/or has the right to grant non-exclusive licenses to a number of patents it asserts essential to the second generation ("2G"), third generation ("3G"), and/or fourth generation ("4G") cellular technology standards established by the European Telecommunications Standards Institute ("ETSI"), a standard setting organization ("SSO"). Through its patenting and SEP declaration strategy, KPN intentionally sought to accumulate and aggregate them into a portfolio with a dominant position in the market for licensing them, and improperly seek unreasonable royalty rates.

3. As explained herein, KPN is and has been a member of ETSI and, thus, the SEPs related to 2G, 3G, and/or 4G that KPN has the right to license are subject to ETSI's Intellectual Property Rights ("IPRs") Policy. The ETSI IPR Policy requires its members to disclose any intellectual property rights ("IPR") that entity has in technology that is or may become essential to a device practicing a standard under consideration, and requires the entity to agree to an irrevocable obligation to be prepared to offer licenses on a FRAND basis.

4. KPN submitted a number of declarations to ETSI identifying numerous patents as potentially essential to the 2G, 3G, and/or 4G cellular standards, and agreeing to license its IPR on a FRAND basis (or "FRAND commitment"). ETSI

and its members relied on such FRAND commitments to include into and/or continue to maintain KPN's technology as part of ETSI's published standards, thus locking-in KPN's technology long into the future even if better or more suitable technologies were invented over time. ETSI and its members relied on such FRAND commitments to lock-in the technology into the standard.

5. For example, on April 27, 2015 and February 11, 2019, respectively, KPN declared that U.S. Patent Nos. 5,930,250 ("the '250 Patent," attached hereto as **Exhibit A**) and 9,014,667 ("the '667 Patent," attached hereto as **Exhibit B**), which are owned by KPN, are essential to technical specifications relevant to 3G and/or 4G standards.

6. The '250 Patent, entitled "Communication System for Interactive Services," was filed on September 4, 1996 and issued on July 27, 1999. The '667 Patent, entitled "Telecommunications Network and Method for Time-Based Network Access," was filed as a PCT on February 19, 2009, initiated prosecution in the U.S. on August 27, 2010, and issued on April 21, 2015. As such, both patents were filed and issued to KPN years prior to KPN's declaration to ETSI that either patent was allegedly essential to technical specifications that are part of the 3G and/or 4G standards.

7. Even though KPN disclosed certain patented technologies after ETSI had already included those technologies into its standards, the ETSI IPR Policy required ETSI to modify or abandon any already-published standards that included technologies not available for FRAND licensing. Specifically, clause 8.2 of the ETSI IPR Policy provides a procedure to address the "[n]on-availability of licenses *after the publication* of" a standard, including efforts "to modify [the standard] so that the IPR is no longer ESSENTIAL," and "non-recognition" of the standard in question if no viable alternatives existed. https://www.etsi.org/images/files/IPR/etsi-ipr-policy.pdf. By later affirmatively committing to license its technology on FRAND terms, KPN displaced this process

and caused ETSI to forego replacing or abandoning any part of ETSI's published standards that included KPN's late-disclosed patented technologies. As a direct result of KPN's FRAND declarations, ETSI thus continued to maintain such technology as part of ETSI standards.

8. Consistent with the intent of ETSI's IPR Policy, and relying on the assurances of FRAND commitments by SEP holders, such as KPN, u-blox has invested substantial resources in developing and marketing cellular modules that are compatible with the 2G, 3G, and/or 4G standards worldwide, including in the United States and California.

9. However, now that this lock-in has occurred and alternative technologies have been excluded from the standards, it has become clear that KPN never intended to license its alleged SEPs on FRAND terms and conditions.

10. u-blox is a ready and willing licensee to KPN's alleged SEPs, but KPN's license related conduct plainly violates its FRAND commitments, including but not limited to:

- Demanding royalty rates that are far in excess of the fair and reasonable value of KPN's SEPs and instead leverage the value of the standardization;
- Upon information and belief discriminating against u-blox and violating ETSI guidelines by demanding u-blox pay higher royalty rates than other implementers;
- Demanding u-blox pay royalties for alleged SEPs covering portions of the standard not implemented by certain u-blox products;
- Demanding u-blox pay royalties for alleged SEPs that KPN failed to timely disclose prior to the standard being adopted; and
- Demanding royalty rates that do not account for the expiration of KPN's alleged SEPs over the course of the license.

11. Upon information and belief, KPN was well aware of the fact that: (i) u-blox entered into relationships with its customers in reliance on KPN's commitment to offer a license to the alleged SEPs on FRAND terms, and (ii)

u-blox's customers and their downstream manufacturers relied on u-blox to obtain a license from SEP holders such that they may design their products and incorporate u-blox's technology into their products.

12. KPN expressly included the '250 Patent and the '667 Patent in its demand to u-blox that u-blox license KPN's alleged SEPs on non-FRAND terms.

13. In response to KPN's unreasonable royalty rate demands, u-blox provided KPN with a counter-offer, along with a detailed explanation of how that counter-offer is FRAND, and reiterated that it was willing to negotiate a FRAND license with KPN.

14. However, KPN refused to negotiate in good faith with u-blox for a FRAND license. Among other things, KPN appears intent on pressuring u-blox into a license that is not FRAND by interfering with u-blox's important customer relationships.

15. In addition to seeking non-FRAND license terms from u-blox to KPN's alleged SEP portfolio, KPN has also directly contacted u-blox customers to accuse those customers of infringing and demand that those customers enter into separate licenses to the same patents.

16. As a result of the foregoing, u-blox has no choice but to turn to the Court to establish FRAND terms and conditions, including a royalty rate, for a license to KPN's alleged SEPs, and to enjoin KPN from engaging in anticompetitive conduct, including, but not limited to, demanding non-FRAND rates from implementers, and seeking royalties for technology that was adopted into the standards well before KPN properly disclosed its IPRs to ETSI and its members—thereby rendering the alleged SEPs unenforceable.

THE PARTIES

A. u-blox

17. Plaintiff u-blox AG is a corporation organized and existing under the laws of Switzerland, having its principal place of business in Zürcherstrasse 68,

8800 Thalwil, Switzerland.

18. Plaintiff u-blox San Diego, Inc. is a wholly-owned subsidiary of u-blox AG. u-blox San Diego, Inc. is a corporation organized and existing under the laws of Delaware, having its principal place of business at 12626 High Bluff Drive #200, San Diego, California 92130.

19. Plaintiff u-blox America, Inc. is a wholly-owned subsidiary of u-blox AG. u-blox America, Inc. is a corporation organized and existing under the laws of Delaware, having its principal place of business at 1902 Campus Commons Drive Suite 310, Reston, Virginia 20191.

20. u-blox delivers leading wireless technology to reliably locate and connect people and devices. u-blox is a leading developer of global positioning technology, including products and services based on Global Navigation Satellite Systems (GNSS), including GPS and GALILEO, for the automotive, mobile communications, and infrastructure markets. u-blox began offering wireless products and services in 2009.

21. In 2011, u-blox acquired Fusion Wireless, a San Diego, California based provider of CDMA wireless modules for consumer and machine-to-machine (M2M) applications in North America. As u-blox's Chief Executive Officer explained at the time, "[t]he acquisition of Fusion Wireless immediately gives u-blox new, cutting-edge wireless module products plus access to the huge embedded CDMA market in North America for both consumer and M2M applications. It also expands our wireless module technology roadmap to cover all popular standards used in the Americas based on a layout-consistent form factor. This will allow our customers to easily adapt their products to match geographical requirements as well as overcome network coverage limitations."

22. Fusion Wireless has been integrated into u-blox as u-blox San Diego, Inc., and the combined company continues to develop and market wireless communications modules worldwide—including in California and throughout the

United States. Today u-blox offers a wide range of high-quality, scalable cellular modules perfectly suited for vehicle, industrial, and M2M applications, and mass-market consumer products with demanding size, cost, and quality requirements.

23. u-blox's wireless communications modules are capable of incorporating a wide variety of cellular technologies. Supported cellular technologies provide global geographic coverage and include at least 2G, 3G, and/or 4G. Even within the 4G standard, u-blox offers a wide range of products practicing different iterations and categories of the 4G standard designed for vastly different tasks, including NB-IoT (LTE Cat NB1), LTE Cat M1, LTE Cat 1, LTE Cat 4, and LTE Cat 6. These different cellular technologies offer different levels of performance and cost benefits. For example, u-blox's LTE Cat 1, LTE Cat M1, and NB-IoT modules are designed to support a wide range of Internet of Things (IoT) applications requiring medium to very low data rates. This includes a broad spectrum of applications covering speeds high enough for voice and video streaming, as well as those that need optimized performance for ultra-low power consumption and extended in-building range. By contrast, u-blox's high speed LTE Cat 4 and LTE Cat 6 modules meet the needs of applications requiring high data rates, such as for HD video transmission and infotainment solutions. u-blox sells standard compatible products in California and around the world.

B. KPN

24. Upon information and belief, Defendant Koninklijke KPN N.V. is a telecommunications (including fixed, mobile, television, and internet) and ICT solution provider headquartered at Wilhelminakade 123, NL-3072 AP, The Netherlands.

25. Upon information and belief, KPN purports to own a large portfolio of U.S. patents and non-U.S. patents spanning multiple jurisdictions and telecommunication technologies related to 2G, 3G, and/or 4G cellular technology. KPN provided lists of its patents to u-Blox in a series of demand letters.

Specifically, KPN identified the patents it alleges are essential to the relevant telecommunications technologies at issue here in correspondence sent on January 31, 2018, and on April 23, 2021, which are incorporated herein by reference.

26. Upon information and belief, KPN derives revenues from patent licensing and aggressively seeks to monetize its intellectual property portfolio by targeting companies like u-blox that sell standards compatible products in California and around the world.

27. KPN has engaged, and continues to engage in patent license negotiations with potential licensors in California, including without limitation, u-blox and u-blox's customer, CalAmp, regarding at least the 2G, 3G, and/or 4G patents that KPN owns, manages, and/or controls.

JURISDICTION AND VENUE

28. u-blox brings this action for declaratory relief, injunctive relief, costs of suit, and reasonable attorneys' fees arising under, *inter alia*, the patent laws of the United States, 35 U.S.C. § 1 *et seq.*; Section 2 of the Sherman Antitrust Act, 15 U.S.C. § 2; and the Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202. Accordingly, this Court has jurisdiction to hear this case pursuant to 28 U.S.C. §§ 1331 and 1337.

29. This Court has subject matter jurisdiction over u-blox's pendent state law claim pursuant to 28 U.S.C. § 1367, because u-blox's state law claim arises from the same factual nucleus as its federal law claims.

30. This Court has personal jurisdiction over KPN based on the antitrust laws, and at least because KPN (1) committed intentional acts, including the wrongful conduct described herein, that give rise to the causes of action herein alleged in this jurisdiction; (2) expressly aimed such acts at u-blox in San Diego, California, among other places, and on information and belief at others in this State; and (3) caused harm that KPN knew was likely to be suffered in this State, including the harm to u-blox described herein.

31. KPN has purposefully directed its actions to California via its exchange of numerous communications with u-blox in an effort to extract non-FRAND SEP license from u-blox relevant to KPN's 2G, 3G, and/or 4G patents in breach of its express FRAND licensing commitments to ETSI. For example, KPN directed its communications to the in house legal counsel for u-blox who is a resident of San Diego, California and an employee of u-blox San Diego, Inc. which has it principal place of business in San Diego.

32. In addition, KPN accused u-blox's customer, CalAmp, of infringing multiple patents that KPN is obligated to license to u-blox and, by extension, u-blox's customers, pursuant to KPN's FRAND licensing declarations to ETSI. CalAmp's Telematics Products and Systems unit, to which KPN directed its infringement-related correspondence and demands, is located at 2200 Faraday Ave., Suite 220, Carlsbad, California, 92008, and is within this District.

33. u-blox's claims described herein are related to and arise out of KPN's contacts within California because they involve the same patents that KPN identified in its negotiation efforts to establish a licensing agreement with u-blox and accused u-blox, and u-blox's customers, of infringing, including without limitation, the '250 Patent and the '667 Patent.

34. Through its communications with u-blox, KPN has also established that it intends to sue u-blox for infringing one or more of the patents it identified as being allegedly essential to the 2G, 3G, and/or 4G standards, including without limitation, the '250 Patent and the '667 Patent.

35. KPN has sued other companies for infringing its alleged SEPs, including the '250 Patent and the '667 Patent, and has therefore developed a reputation for filing suit for patent infringement if and when prospective licensees refuse to acquiesce to KPN's non-FRAND licensing demands.

36. KPN's actions have instilled in u-blox a reasonable apprehension that KPN will sue u-blox for patent infringement, including for infringement of the '250

Patent and the '667 Patent.

37. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391(b)(2) as the licensing negotiations giving rise to the complaint were directed at u-blox's employees in this judicial district.

FACTUAL ALLEGATIONS

38. As explained below, u-blox brings this action because KPN breached its commitments to ETSI, 3GPP, their members and affiliates, and third party beneficiaries to these commitments—including u-blox—to timely disclose its alleged 2G, 3G, and/or 4G SEPs to ETSI and to license its purported SEPs on FRAND terms and conditions as KPN expressly promised it would.

Standard Setting Leads to Creation of Monopoly Power in Adopted Technologies

39. SSOs, such as ETSI, are voluntary membership organizations whose participants engage in the development of industry standards for the benefit of their members and affiliates, third parties implementing the standards, and consumers.

40. SSOs and the standards they promulgate play an important role in the technology market by allowing companies to agree on common technology standards so that compliant products implementing the standards will work together. Standards also lower costs by increasing product manufacturing volume and inter-brand competition and by reducing switching costs for consumers and/or manufacturers who want to switch from products, services, or components provided by one company to those provided by another company.

41. Compatibility standards are commonly adopted in industries in which complementary products or components, manufactured by different firms, must interoperate, interface, or communicate with each other. When many companies produce components that must interoperate in a complex system, collaboration among industry participants is often the most efficient way to establish the requisite standards. This collaboration often takes place in the context of formal SSOs that

promulgate standards and set participation rules for their members. The telecommunications industry has benefited from increased interoperability across devices and networks, and the 2G, 3G, and 4G cellular communications standards at issue here are examples of compatibility standards. Notwithstanding its potential for economic benefits and efficiency, standardization nonetheless possesses significant anticompetitive risks by eliminating competitive alternatives that otherwise would exist absent standardization.

42. Prior to adoption of a standard, there are generally multiple alternative technology solutions competing to perform any given functionality. During the standard setting process, including in the ETSI standard-setting environment, SSO participants evaluate and then select the appropriate technology, among alternatives, to fulfill each individual function required to practice the relevant standard. This process includes considering not only the technical merits of any alternative, but also whether any alternative is based on proprietary technology and if such proprietary technology is available for licensing on FRAND terms and conditions. If a technical alternative under consideration is known to be unavailable for FRAND licensing, the relevant SSOs, such as ETSI, are required to reassess their options or even withdraw the portion of the standard that relies on such proprietary technology.

43. Under the ETSI IPR policy, "[d]uring the proposal or development of a standard, ETSI members must inform the Director General in a timely fashion if they are aware that they hold any patent that might be essential."[1]

44. The ETSI IPR policy is designed as such to allow its members to weigh the costs and benefits of implementing the potential technology. Without timely disclosure of IPRs, a technology holder would obtain an unfair business advantage through the patents they obtain if they are essential to the standard.

45. Thus, before a standard is adopted, all of the potential alternative

[1] ETSI IPR Policy, Section 4.1 at 1; *see also* ETSI website at https://www.etsi.org/intellectual-property-rights.

technologies capable of performing each particular function within a 2G, 3G, or 4G standard compete for adoption in the product market covering that functionality. These product markets are collectively referred to for a particular standard as "technology markets."

46. In contrast to the competition that typically exists among alternatives before standardization, other technological alternatives no longer compete with the standardized technology after the chosen technology is adopted into a standard. Thus, for as long as the standard remains in use, no viable substitutes exist post-standardization for the technology embodied in a relevant SEP. As a result, the incorporation of a patent into a standard makes the scope of the technology market for each specific functionality of a standard congruent with that of the patent asserted to be essential to that particular functionality of the standard. By so artificially eliminating competition, standardization confers monopoly power on SEP owners, giving them the power to extract above-FRAND royalties and to exclude implementers from practicing the standard. Here, the relevant technology markets and/or submarkets *post-standardization* are limited to the specific patents and/or patent applications that KPN claims are essential to the 2G, 3G, or 4G cellular standards, including the purported SEPs identified herein and which were disclosed in KPN's respective licensing declarations to ETSI (hereafter "Relevant Technology Markets"), as found in **Exhibits C–D**. Because they are no longer considered reasonably interchangeable substitutes for KPN's adopted technologies, any excluded alternatives are no longer part of the Relevant Technology Markets post-standardization. Accordingly, after standardization, KPN became the only commercially-viable technology supplier in each of the Relevant Technology Markets for which its patented technology purportedly became standardized. As a result, standards implementers, including u-blox, could no longer substitute any other technologies for KPN's adopted technologies. KPN thus possesses monopoly power in the Relevant Technology Market for each of its standardized patented

technologies, and a dominant share of that market, allowing it to extract supra-FRAND royalties and exclude companies in the downstream markets that utilize the standards.

47. To the extent ETSI may not have considered alternatives when adopting a KPN technology, it did so without knowledge that such technology was proprietary due to KPN's failure to timely disclose such technology to ETSI before its adoption. Thus, ETSI was lulled into believing that the technology being adopted was free of IPRs.

48. Because standardization confers artificial monopoly power on SEP owners like KPN, it has the potential to empower any individual firm that has IPR over one or more technologies that are essential to the standard to block other firms from practicing the standard or to significantly raise their costs of doing so. Outside of the standard-setting context, the extent to which a patent holder will be able to profit from an invention is limited by competition from alternative, non-infringing technologies or products. Thus, even though a patent gives its owner the right to exclude unauthorized users, it does not necessarily confer monopoly power because other constraining, non-infringing alternatives may be, or over time will be, available. However, incorporating patented technology into a standard artificially removes competition from those alternatives for as long as a standard remains in use even if better alternatives are invented over time, and provides the patent owner with significant market power that is neither due to the mere issuance or ownership of a patent nor the patent's inherent technical value (*i.e.*, the contribution of the patented technology relative to the alternatives—the *ex ante* value).

49. Thus, standardization transforms what may have been only marginally valuable IP into essential IP needed by all firms that intend to manufacture, use, or sell standard-based products. This elimination of competitive restraints confers market power on SEP owners relative to the marginal power they would have had pre-standardization where alternatives (including the option of not including the

relevant functionality at all) would be potentially available in the technology market(s) and could constrain anticompetitive licensing behavior of the SEP owner.

50. Once a standard is set, and especially as manufacturers such as u-blox invest in and begin manufacturing products that can use or operate with the standard, it becomes increasingly difficult to revise the standard in order to avoid a SEP. Revising a standard can be very costly to the industry implementing that standard because it may involve breaking the compatibility and interoperability that the standard provides. While the ETSI IPR Policy does contemplate post-standardization procedures to address such exploitative behavior by SEP owners after a standard has been published, changing a standard to eliminate a SEP whose owner attempts to unfairly exercise undue market power gained from standardization is very costly.

51. The *ex post* relaxation of competitive constraints on the SEP owner through the elimination of alternatives, together with the *ex post* negotiation of licenses, gives rise to the possibility that a SEP owner will act opportunistically and "hold up" some or all standard implementers by extracting higher royalties *ex post* that leverage the lock-in value of standardization rather than the *ex ante* value of the technology itself. Such exploitative behaviors expropriate at least a portion of an implementer's returns from sunk investments in innovation. If an implementer or potential implementer anticipates that there is a material risk of opportunistic behavior by SEP owners, its incentives to engage in innovative activities will be reduced or possibly even eliminated, particularly when the SEP holder seeks to hold up the implementer for all or a large part of the profits from the implementer's innovations, complementary products, or services.

52. When adhered to, the above discussed IPR policies benefit all of the constituencies. Standard setting participants benefit by having their technology incorporated into the standard and to receive compensation for its use larger volumes of devices that operate using the standard. As a standard becomes more

widely adopted and used, patent holders receive greater total compensation. SSO participants also enjoy benefits independent of potential royalty income, including recognition of leadership in the technology, increased demand for participants' products, advantages flowing from familiarity with the contributed technology potentially leading to shorter development lead times, and improved product compatibility.

53. Firms that implement the standard receive an assurance that they will always have access to essential patents on reasonable terms and will not be exploited by patent holders or disadvantaged relative to other implementers if they invest in developing innovative products that may operate with the standard. Likewise, consumers and businesses benefit from continued innovation, reduced costs, and other efficiencies from widespread interoperability and economies of scale and scope enabled by the standard.

54. By contrast, IPR policy breaches, such as those alleged here, can chill standard-setting efforts, thus denying to standard setting participants, implementers, and consumers the many benefits of standard setting.

ETSI's IPR Policy

55. ETSI is an independent, non-profit SSO that is responsible for the standardization of information and communication technologies, including mobile cellular technologies, for the benefit of its members and affiliates.

56. 3GPP is a collaborative project that develops standards in partnership with a group of recognized SSOs in the information and communication industry, including ETSI.

57. ETSI, in partnership with 3GPP, has been involved in standardizing a number of 2G, 3G, and 4G mobile cellular technologies.

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58. The ETSI IPR Policy[2] requires its members to disclose on a timely, bona fide basis all intellectual property rights that they are aware of and believe may be or may become essential during the development of an ETSI standard. The ETSI IPR Policy, Clause 4.1 provides that: "each MEMBER shall use its reasonable endeavours [sic] to timely inform ETSI of ESSENTIAL IPRs it becomes aware of. In particular, a MEMBER submitting a technical proposal for a STANDARD shall, on a bona fide basis, draw the attention of ETSI to any of that MEMBER's IPR which might be ESSENTIAL if that proposal is adopted." This obligation to disclose extends to members' affiliates as well. In other words, if a member is going to receive an economic benefit from having technology covered by its intellectual property included in the standard, other ETSI members should be informed of this ***before*** making their final decision to adopt such technology into the standard, and in particular where such technology was submitted in a technical proposal by the IPR holder.

59. The ETSI IPR policy is designed as such to allow its members deciding which technology should be adopted into the standard to analyze whether or not the technology will be subject to a FRAND commitment, in order to weigh the costs and benefits of implementing the potential technology. Without timely disclosure of IPRs, a technology holder would obtain an unfair business advantage through the patents they obtain if they are essential to the standard.

60. Additionally, ETSI's IPR Policy requires that participants disclose their relevant IPR during the development of a standard so that ETSI may request that members owning patents potentially essential for the practice of a standard irrevocably commit to license those patents on FRAND terms and conditions to anyone practicing the standard. Specifically, clause 6 of ETSI's IPR Policy states:

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[2] *See* ETSI IPR policy is available at https://www.etsi.org/images/files/IPR/etsi-ipr-policy.pdf, last visited March 12, 2020, which has remained substantively similar since 1994.

> When an ESSENTIAL IPR relating to a particular STANDARD is brought to the attention of ETSI, the Director of ETSI shall immediately request the owner to give within three months an undertaking in writing that it is prepared to grant irrevocable licenses on fair, reasonable and non-discriminatory [FRAND] terms and conditions under such IPR… The above undertaking may be made subject to the condition that those who seek licenses agree to reciprocate.

ETSI IPR Policy, § 6.1.

61. Clause 6.1 lists "MANUFACTURE, including the right to make or have made customized components and sub-systems to the licensee's own design for use in MANUFACTURE," as among the uses for which SEP holders must make mandatory FRAND licensing commitments. *Id.*

62. FRAND commitments, pursuant to Clause 6 of the ETSI IPR Policy, "shall be interpreted as encumbrances that bind all successors-in-interest."

63. ETSI defines "essential" as follows:

> "ESSENTIAL" as applied to IPR means that it is not possible on technical but not commercial grounds, taking into account normal technical practice and the state of the art generally available at the time of standardization, to make, sell, lease, otherwise dispose of, repair, use or operate EQUIPMENT or METHODS which comply with a STANDARD without infringing that IPR. For the avoidance of doubt in exceptional cases where a STANDARD can only be implemented by technical solutions, all of which are infringements of IPRs, all such IPRs shall be considered ESSENTIAL.

ETSI IPR Policy, Annex 6.

64. Although ETSI defines the term "essential," it does not make any attempt (nor, in general, do any SSOs) to ascertain whether the patents declared as potentially "essential" to a standard are valid and enforceable, or whether they are, in fact, technically essential. Which patents are deemed potentially "essential" to a particular standard is self-proclaimed by the declaring SSO member.

65. If the essential IPR owner refuses to undertake the requested

commitment and informs ETSI of that decision, the ETSI General Assembly must "review the requirement for that STANDARD or TECHNICAL SPECIFICATION and satisfy itself that a viable alternative technology is available for the STANDARD or TECHNICAL SPECIFICATION" that is not blocked by that IPR and satisfies ETSI's requirements. ETSI IPR Policy, § 8.1.1. Absent such a viable alternative, the ETSI IPR Policy requires that "work on the STANDARD or TECHNICAL SPECIFICATION shall cease." *Id.*, § 8.1.2. In other words, ETSI will not agree to incorporate a member's technology into a standard under consideration unless the member irrevocably binds itself to granting licenses on FRAND terms.

66. Additionally, Section 8.2 of the ETSI IPR Policy describes the procedure for addressing the non-availability of a license after the publication of a standard or technical specification, including efforts "to modify [the standard] so that the IPR is no longer ESSENTIAL," and "non-recognition" of the standard in question if no viable alternatives existed. *Id.*, § 8.2. Notably, where a FRAND declaration "cannot be obtained because of the refusal by the essential IPR owner, the Secretariat is ***obliged*** to initiate the procedure … in Clause 8 …" The ETSI Guide on IPR, cl. 2.4.2 (emphasis added).

67. Had a specific ETSI member (e.g., KPN) disclosed to ETSI that it was actually not going to commit to FRAND rates (which is akin to a license not being available), ETSI was required to use the procedure outlined in clause 8 of the ETSI IPR Policy to reject the member's technologies even after publication of the relevant standards. In addition, as ETSI standards have evolved over time and additional versions of the standards were adopted, ETSI and its members relied on prior FRAND commitments to keep the prior technology in place. Had the member affirmatively stated that it would not offer FRAND rates, the other ETSI members could have worked on implementing a design around in later versions and were required to invoke the procedures in clause 8 of the ETSI IPR Policy.

68. However, here KPN lulled ETSI into keeping KPN's purported SEP technologies as part of ETSI's published standards by later expressly, but falsely, committing to license certain untimely-disclosed purported SEPs identified herein. In fact, KPN never intended to abide by its FRAND promises, as demonstrated by its unreasonable behavior outlined herein. Instead it falsely undertook that commitment—at times years after its technologies had already been adopted—to cause ETSI to forego rejecting its technologies as ETSI was obliged to do absent a FRAND licensing commitment pursuant to, *inter alia*, clause 8.2 of the ETSI IPR Policy.

Overview of Cellular Standards

69. KPN's unlawful and anticompetitive behavior pertains to patents that it claims are essential to the 2G, 3G, and/or 4G cellular standards, which are described below.

Early Cellular Standards

70. The first widespread use of mobile phones began in the late 1970s and into early 1980s with analog systems, generally referred to as "1G." The 1G system most widely deployed and most successful in the U.S. in the 1980s was AMPS (Advanced Mobile Phone System). However, there were many other regional and national systems in operation around the world at that time, leading to a fragmented market with individual regions having their own vendors and standards that were incompatible with one another.

71. In the late 1980s, the cellular industry moved towards a second generation of mobile telephony, based on digital technology. Such systems introduced a number of important benefits over the previous analog 1G systems, such as improved voice quality, increased system capacity, increased system security, and the ability to integrate voice and data services.

72. For the first time, SMS (Short Messaging Service, *i.e.*, "texting" or "texts") and basic data services became available. But there were divergent views

on how to effectuate these benefits. Thus, there were a number of different standards considered to be 2G.

73. In Europe, a system called Global System for Mobile Communications ("GSM"), originally referred to as Groupe Spécial Mobile, evolved to become the dominant worldwide 2G standard.

74. GSM and these newer variants are still in use today. They can support voice service and user data rates with low to moderate data transmission speed. However, despite the availability and widespread, global adoption of GSM, the technology was not initially widely commercialized in the United States. In the United States, a different 2G technology, based on a different wireless air interface named Code Division Multiple Access ("CDMA"), was being strongly championed by Qualcomm.

75. At a very basic level, CDMA operates by assigning each user a unique identifier, a "spreading code," which is used to "spread" all the digital data transmitted to or from that user. Because each user has a unique spreading code, a user need not be assigned a specified time slot as is required with other more onerous technologies. With CDMA, multiple users can communicate at the same time (*i.e.,* simultaneously) using the same frequency by transmitting messages that have been spread using different but orthogonal "spreading codes" on the forward link.

76. In the United States, eventually roughly half of the large wireless carriers, including AT&T, deployed GSM while the other half, including Verizon, deployed CDMA.

3G Standards

77. In the mid to late 1990s, the cellular industry started a push towards a newer, more advanced system, able to support more users with improved reliability and better handling of data services.

78. Originally the hope was to adopt a single, global standard. However,

over time, it became apparent that diverging regional interests would prevent a single system from being adopted. On the one hand, supporters of the GSM-based standards pushed to have a system based on the GSM core network, but with an enhanced Radio Access Network incorporating a new CDMA-based air interface known as Wideband CDMA ("WCDMA"). This standard is known as Universal Mobile Telecommunications System, or "UMTS." On the other hand, supporters of the IS-95 family of standards pushed to enhance the existing IS-95 core network and CDMA air interface, to develop a new standard known as CDMA2000.

79. The first UMTS standard developed by 3GPP was called Release 99, and was followed by a minor "cleanup" revision called Release 4. The first major upgrade came in 2002 with Release 5, including a new feature called High Speed Downlink Packet Access ("HSDPA"), which was followed by Release 6 in and around early 2005 that introduced High Speed Uplink Packet Access ("HSUPA"). Together HSDPA and HSUPA (collectively known as High Speed Packet Access or "HSPA") enhanced the download and upload speeds as compared to the original baseline specification. In 2007, Release 7 included an enhancement named High Speed Packet Access Evolution ("HSPA+"), which includes a number of technical modifications to support even higher data rates. More recent releases have further improved functionality.

80. UMTS, as improved through the various releases, remains in widespread use around the world today. As with 2G, roughly half of the network operators in the United States deployed UMTS networks while the other half deployed CDMA2000 networks.

The 4G Standard

81. For the first time in the evolution of cellular standards, the global cellular industry converged to a single wireless standard for use worldwide in the late 2000s: Long Term Evolution ("LTE"). This standard was developed by 3GPP, and it provides a natural evolutionary path for both UMTS and CDMA2000 network

operators and their customers. Similar to the earlier generations, LTE also continues to evolve, including advances such as LTE-Advanced.

82. Work began in earnest on developing LTE around 2006, under the leadership of 3GPP. The first technical specifications, known as Release 8, were published in 2008. Release 8 includes functionality that theoretically supports downlink data rates of about 300 Mbps and uplink data rates of about 75 Mbps.

83. In 2011, an upgrade to LTE was published, referred to as Release 10, incorporating many features of what is known as LTE-Advanced. This upgrade includes a number of major technical enhancements to considerably increase LTE functionality. Commercial deployments of LTE-Advanced are in progress today.

84. Development of the LTE standard continued beyond Release 10 with incremental improvements to the standard, including many relevant to u-blox's cellular modules.

85. In Release 12, 3GPP specified low-price machine-communication terminals as LTE terminal Category 0. These terminals feature a maximum data rate of 1Mbps, support for frequency division duplex and half duplex, and support for single antenna reception.

86. In Release 13, 3GPP defined two new terminal categories. Category M1 includes the features of Category 0, with the transceiver bandwidth limited to 1.08 MHz and support for coverage extension of approximately 15 decibels or dB. These limitations have cost reduction effects for chipsets compared to Category 0. Second, Release 13 defined the Narrowband IoT ("NB-IoT") category of devices. NB-IoT is a subset of the LTE standard focused on indoor coverage, low cost, long battery life, and high connection density. The NB-IoT category features transceiver bandwidth limited to 180kHz and support for coverage extension greater than 20 dB.

87. As of Release 13, the LTE standard defines 19 separate categories of user equipment ("UE"). These categories depend on maximum peak data rate and

MIMO capabilities supported by the UE.

88. Cellular products and components implementing LTE are not required to practice every release of the LTE standard. For example, u-blox's components that use low-speed LTE category standards do not need to incorporate all the technology needed in high-speed LTE category standards. Thus, given the variation of LTE category implementations, not every u-blox product needs a license to all the same LTE (4G) patents.

Hold-up and Royalty Stacking

89. Despite SSOs adopting IPR Policies incorporating FRAND commitments, some SEP owners, including KPN, have attempted to exploit their monopoly power to extract supra-competitive royalty rates after implementers are locked into the standardized technology.

90. The exploitation of SEPs to extract unreasonable or discriminatory royalties that leverage and reflect the *ex post* value of standardization, as opposed to the *ex ante* value of the patented technology, is referred to as patent "hold-up." The cumulative royalty burden required to satisfy all SEP holders is referred to as a royalty stack.

91. Hold-up harms competition and impedes implementation of standards, diminishing the benefits that flow from widespread adoption of the standard. The anticompetitive effects of hold-up are magnified when the total aggregate royalty stack is analyzed. The total royalty stack must be reasonable when viewed in the aggregate. The demands of individual SEP owners must be assessed in light of the total number of SEPs included in the standard and their relative technical contributions.

92. A number of cases that have been litigated in U.S. courts demonstrate that patent hold-up is a widespread problem, with SEP owners violating their FRAND commitments by making royalty demands significantly above the adjudicated FRAND rates. *See, e.g.*, *In re Innovatio IP Ventures, LLC Patent Litig.*,

2013 WL 5593609, at *43 (N.D. Ill. Oct. 3, 2013) (for 19 asserted patents, assessing damages of $0.0956 per unit as compared to the proposed royalty of $16.17 per unit for tablet computers); *Microsoft Corp. v. Motorola, Inc.*, 2013 WL 2111217, at *100 (W.D. Wash. Apr. 25, 2013) (determining FRAND rate of $0.03471 per Microsoft's xBox unit, as compared to Motorola's initial demand of $6-$8 per xBox unit).

93. Courts, regulators, and economists, among others, have also made clear that to be effective, the FRAND commitments should: (a) limit royalties to the value that the SEP(s) had prior to inclusion in the ETSI standard and in light of other patented and unpatented technology essential to the standard; (b) prohibit charging royalties that are based upon the technology's inclusion into the standard or that capture the value of the standard itself; and (c) require non-discriminatory treatment of licensees and potential licensees.

94. As explained below, and like the SEP owners from the aforementioned cases, an analysis of KPN's non-FRAND offers to u-blox for a license demonstrates that KPN is attempting to abuse its monopoly power to extract the hold-up value of its alleged SEPs. As described below, KPN's licensing offer to u-blox is completely untethered to the *ex ante* value of KPN's alleged SEPs, and would create an unsustainable royalty stack. In light of KPN's continued unreasonable demands for a license and related conduct, u-blox has no choice but to seek a judicial determination of the terms for a fair, reasonable, and non-discriminatory license KPN's 2G, 3G, and/or 4G patents.

KPN's IPR Declarations

95. As an ETSI member and a participant in ETSI and/or 3GPP standardization, in conjunction with the adoption of the 2G, 3G, and/or 4G standards, KPN made submissions to the technical bodies within ETSI and/or 3GPP, declaring that certain patents or patent applications may be or may become essential to the standards under consideration.

96. Upon information and belief, for at least some of KPN's patents, KPN

was aware of technical proposals using technology related to the filed patent applications which were then adopted as the standard. However, KPN failed to disclose that it had filed patent applications relating to technical standards submissions until many years after they had been adopted when it finally filed a declaration disclosing IPR related to the adopted technology. It is well known that ETSI members are incentivized to choose technical solutions that are free of licensing costs. Accordingly, there is a reasonable possibility that advance knowledge that a proposed technology was proprietary could have dissuaded ETSI members to implement that technology. *See Conversant Wireless Licensing S.A.R.L. v. Apple, Inc.*, No. 15-cv-05008-NC, Dkt. 547, at 10 (N.D. Cal. May 10, 2019).

97. KPN waited several years from the dates many of its patents were filed and issued before KPN submitted IPR declarations for those patents, and agreed to enter into an irrevocable undertaking to grant licenses to its disclosed essential patents on FRAND terms and conditions.[3] For example, although the '250 Patent was filed on September 4, 1996, issued on July 27, 1999, and the technical specification to which the '250 Patent is allegedly essential was adopted on March 15, 2000, KPN still waited until April 27, 2015, after KPN had asserted that patent in a patent infringement lawsuit, to declare the '250 Patent, and each of its family members, essential in an IPR Declaration to ETSI.

98. Similarly, although the '667 Patent was filed on February 19, 2009 and issued on April 21, 2015, and the technical specifications to which the '667 Patent is

[3] u-blox does not accept KPN's representation that any (or all) of the patents identified as potentially "essential" are, in fact, necessary for the compliant implementations of 2G, 3G, and/or 4G technologies; nor does u-blox concede that the particular implementations of such technologies in its products practice any of KPN's patents, including those identified by KPN in relation to these technologies. Nonetheless, u-blox, and the entire cellular technology industry, has relied upon the KPN IPR declarations with FRAND commitments.

allegedly essential were adopted between March 28, 2011 and April 7, 2011, KPN still waited until February 11, 2019, after KPN had asserted that patent in multiple patent infringement lawsuits, to declare the '667 Patent, and each of its family members, essential in an IPR Declaration to ETSI. The timeline for the late disclosure of the '250 Patent and the '667 Patent is described below.

Late Disclosure of the '250 Patent

99. On September 8, 1995, KPN's predecessor, PTT Nederland NV, filed the Netherlands Patent Application No. 1001162 entitled "Communication system for interactive services with a packet-switched interaction channel over a narrow-band circuit-switched network, as well as a device for application in such a communication system."

100. On September 4, 1996, KPN filed U.S. Patent Application No. 08/709,325 that claims priority to Netherlands Patent Application No. 1001162. U.S. Patent Application No. 08/709,325 issued as the '250 Patent on July 27, 1999. On March 15, 2000, ETSI published technical specification ("TS") 23.140 v.3.0.1 as part of the 3G standard, and which was subsequently adopted into the 4G standard.

101. On December 30, 2014, KPN asserted the '250 Patent against Samsung.

102. Then, on April 27, 2015, KPN submitted an IPR to ETSI declaring the '250 Patent as being essential to the 3G and 4G standards vis-à-vis TS 23.140 v.3.0.1.

Late Disclosure of the '667 Patent

103. On February 29, 2008, KPN filed European Patent Application EP08003753 entitled "Telecommunications network and method for time-based network access." That application matured into European Patent EP2096884 on February 9, 2009.

104. On February 19, 2009, KPN filed U.S. Patent Application No. 12/919,965 that claims priority to European Patent Application No. EP08003753.

U.S. Patent Application No. 12/919,965 issued as the '667 Patent on April 21, 2015.

105. Between March 28, 2011 and April 7, 2011, ETSI published TS 22.368 v.10.4.0, TS 23.060 v.10.3.0, and TS 24.008 v.10.2.0 as part of the 3G standard, and which were subsequently adopted into the 4G standard.

106. On June 5, 2015, KPN asserted the '667 Patent against Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Telecommunications America LLP (collectively "Samsung").

107. On November 3, 2015, KPN asserted the '667 Patent against Samsung, and SmartThings, Inc.

108. On January 30, 2017, KPN asserted the '667 Patent against BlackBerry Limited and BlackBerry Corporation (collectively "BlackBerry"), HTC Corporation and HTC America, Inc. (collectively "HTC"), Lenovo Group Ltd., Lenovo Holding Co., Inc., and Lenovo (United States) Inc. (collectively "Lenovo"), LG Electronics Inc., LG Electronics, U.S.A., Inc., and LG Electronics Mobilecomm U.S.A., Inc. (collectively "LG").

109. On November 13, 2018, KPN asserted the '667 Patent against TCL Communication, Inc., TCL Communication Technology Holdings Limited, TCT Mobile, Inc., and TCT Mobile (US) Inc. (collectively "TCL").

110. Then, on February 11, 2019, KPN declared the '667 Patent to be essential to the 3G and 4G standards vis-à-vis TS 22.368 v.10.4.0, TS 23.060 v.10.3.0, and TS 24.008 v.10.2.0.

111. KPN continues to assert the patents against implementers of the standards, including u-blox and its customer CalAmp, and seeks non-FRAND royalty rates, even though KPN waived its right to enforce these patents. As a direct and proximate consequence of KPN's unlawful monopolization of the technology allegedly covered by the '250 Patent and '667 Patent, customers of the Relevant Technology Markets (implementers of the standards such as u-blox) face higher costs for access to cellular technologies necessary for the manufacture of standard-

compliant products than they would have paid in a competitive marketplace.

KPN's Refusal to Offer u-blox a License on FRAND Terms

112. As explained above, KPN falsely committed to license the essential patents it holds on FRAND terms and conditions consistent, in all respects, with its binding commitments to ETSI, 3GPP, and participants and implementers of the applicable standards. However, in disregard of its binding obligations, KPN is refusing to license its alleged SEPs to u-blox on FRAND terms and conditions.

113. On December 23, 2015, KPN employee, Gert-Jan Schilt, sent a letter to u-blox demanding that u-blox license KPN's wireless patent portfolio, part of which was allegedly essential to the 2G, 3G, and 4G wireless standards. KPN attached multiple claims charts to its demand letter that purported to map features of u-blox's products to KPN's patent claims.

114. Around the same time, KPN sent a similar letter to u-blox's customer, CalAmp Corporation in which KPN alleged that CalAmp infringed three of KPN's alleged SEP patents through CalAmp's use of u-blox components.

115. On May 12, 2016, after a series of communications between the parties relating to KPN's demand, Jan Schnitzer responded to Mr. Schilt by indicating that "u-blox is a willing licensee," and requesting that KPN provide u-blox with a FRAND licensing offer to KPN's alleged SEP patents.

116. Over the summer of 2016, numerous emails were exchanged between KPN and u-blox regarding the general framework and terms and conditions for a possible patent license. u-blox also requested that KPN "retract" its infringement allegations against u-blox's customer, CalAmp, since KPN's infringement claims would be rendered moot by a prospective license agreement between KPN and u-blox. KPN refused to withdraw its allegations against CalAmp.

117. On August 31, 2016, KPN sent u-blox a draft licensing agreement that included a set of proposed licensing terms for a license to certain patents that KPN alleges to be essential to the 2G, 3G, and/or 4G standards, including, for example,

EP0763960 and EP2250835, inclusive of their U.S. family members.

118. KPN's August 31, 2016, licensing proposal provided specific terms and conditions including a running royalty rate for 2G, 3G, 4G, 5G, and WiFi technologies implemented in u-blox's customers' end-products, such as M2M modules, PCs, laptops, notebooks, and tablets.

119. The '250 Patent claims priority to Netherlands Patent NL 1001162, which is the parent to European Patent EP0763960. Accordingly, the '250 Patent and EP0763960 are part of the same family, and were both expressly identified in KPN's proposed license.

120. The '667 Patent claims priority to European Patent EP08003753, which is the parent to European Patent EP2250835. Accordingly, the '667 Patent and EP2250835 are part of the same family, and were both expressly identified in KPN's proposed license.

121. In the latter half of 2016, KPN and u-blox continued to exchange email correspondence regarding the proposed license, including u-blox requesting more details from KPN about its proposed royalty rate calculation for consideration. KPN declined to provide any substantive explanation about how it calculated its royalty rate and instead explained that the royalty fee it demanded from u-blox was "for each specified technology in each product where without a license, the product by having that technology ***infringes*** at least one of [KPN's] patents." (Emphasis added).

122. From December 2016 to June 2017, u-blox carefully considered KPN's offer, proposed license terms, and list of alleged SEPs. During that time, u-blox San Diego hired Kent Baker, Head of IP Strategy & Licensing, who took the lead on evaluating and negotiating KPN's proposed license.

123. On June 29, 2017, Mr. Baker responded to Mr. Schilt and suggested the parties discuss KPN's proposal via telephone.

124. No telephonic conference took place and instead on January 31, 2018,

Mr. Schilt emailed Mr. Baker of u-blox San Diego to request an update on u-blox's consideration of KPN's proposed license. Mr. Schilt attached a table of KPN's patents that it alleged u-blox "continues to infringe," which included both the '250 Patent and the '667 Patent. KPN offered to provide u-blox with updated claim charts, which Mr. Baker requested on March 15, 2018, and were sent by KPN on March 26, 2018. KPN's correspondence included claim charts for EP0763960 and EP2250835, which are family members of the '250 Patent and the '667 Patent, respectively.

125. Between March 2018 and March 2019, u-blox continued to evaluate KPN's claim charts in view of its proposed license terms.

126. On March 6, 2019, Mr. Baker of u-blox San Diego responded to Mr. Schilt to re-affirm that u-blox is a willing licensee to a FRAND license to KPN's SEPs, but that it would not agree to KPN's non-FRAND SEP license. Mr. Baker pointed out that KPN's licensing correspondence did not unambiguously identify which patents KPN actually alleged to be essential to ETSI standards and purported to seek licenses to patents that had expired and/or had been invalidated through litigation, even though they were still being asserted against u-blox. Mr. Baker requested that KPN provide an updated offer and list of its alleged SEPs that KPN is asserting against u-blox.

127. On December 30, 2019, Mr. Schilt responded to Mr. Baker of u-blox San Diego by resending a copy of its August 31, 2016 license offer providing an updated set of claim charts that largely included the same patents from KPN's previous correspondence, including the'250 Patent and the '667 Patent.

128. Between December 2019 and January 2021, the parties corresponded about KPN's proposal multiple times. In that correspondence, Mr. Baker continued to point out that KPN's proposed royalty rate was well above rates that courts had considered FRAND, and the list of SEPs included expired patents and/or patents that u-blox did not practice. Nevertheless, KPN maintained its proposed licensing

terms, royalty rate, and list of alleged SEPs. The parties also discussed a potential meeting to further negotiate.

129. In January 2021, KPN sent u-blox a revised offer that modified its previously offered flat-rate royalty to a proportional valuation approach based on a $300 per unit product cost for a handset even though u-blox is only a supplier of components and subsystems which cost significantly less.

130. On March 16, 2021, Mr. Baker responded to KPN indicating that KPN's proposed royalty rate was non-FRAND for multiple reasons, including, for example, because it used a handset cost that was an order of magnitude higher than u-blox's cost. Mr. Baker proposed a counter-offer using actual unit costs.

131. On April 23, 2021, KPN responded to Mr. Baker by declining u-blox's counteroffer and again demanding that u-blox agree to KPN's non-FRAND royalty rates and terms.

132. On June 23, 2021, KPN and u-blox met and continued to discuss possible licensing agreements. No agreements were reached at the conclusion of the meeting.

133. u-blox is, and has always been, ready, willing, and able to enter into a license to KPN's 2G, 3G, and 4G SEPs on FRAND terms and conditions.

134. However, KPN has no intention of granting u-blox a license to its allegedly essential 2G, 3G, and 4G patents on FRAND terms and conditions.

135. Instead, KPN is incentivized and continues to offer non-FRAND rates to u-blox, knowing that that u-blox cannot accept the offer, so that KPN can pursue a license from u-blox's downstream customers where it can demand a royalty based on products that incorporate u-blox components and have higher average selling prices. This intent is amply reflected in KPN's demand that u-blox pay royalties based on a percentage of the selling price of an end-product that incorporates u-blox's components, as opposed to basing its royalty on the smallest salable unit that practices KPN's purported SEPs, which sell at a fraction of the price of the relevant

end-products. Indeed, "[i]f the royalty is excessive in comparison to a *chip* manufacturer's profit margin on a chip, … the royalty is too high" and thus not FRAND no matter where the potential licensee may be within the supply chain. *In re Innovatio IP Ventures*, 2013 WL 5593609, at *38 (emphasis added). As such, u-blox is confronted with an entirely unfair Hobson's choice: refuse to capitulate to KPN's unreasonable demands and risk losing its customers and business or agree to a license containing terms and conditions including an unreasonable royalty rate that are not FRAND. Given these clear hold-up conditions, u-blox had no choice but to file this action.

The Harm to u-blox and Industry Competition

136. In justifiable reliance upon KPN's promises that it would license its SEPs to u-blox and others on FRAND terms, u-blox has made significant monetary investments into the research, development, production, and marketing of its cellular modules. In addition, by failing to inform ETSI that KPN would not abide by prior FRAND assurances that encumbered any later-acquired patents, KPN lulled ETSI into foregoing the procedures set forth in, *inter alia*, Section 8.2 of the ETSI IPR Policy and ETSI Guide on IPRs related to the unavailability of FRAND licenses after a standard has been adopted and published. Indeed, by affirmatively agreeing to abide by ETSI's FRAND licensing requirements KPN reinforced the belief that the technologies it acquired would be available on FRAND terms and conditions.

137. Additionally, KPN's licensing campaign introduces new and uncertain costs to suppliers of electronics compatible with the standards—which were implemented prior to the entry of such licensors as KPN into the Relevant Markets. The costs of negotiating and/or defending litigation resulting from new and unanticipated demands for supra-FRAND rates by late-disclosing entities such as KPN, were not and could not have been calculated into u-blox's decision to invest millions of dollars into research and development of its components, or in determining their pricing—made years prior. Therefore, KPN's licensing campaign

undermines competition and dampens innovation by causing less investment into new products, and consequently harms the end consumer as suppliers need to charge higher prices for their products.

138. Based on the foregoing, u-blox seeks, *inter alia*: (i) a judicial declaration that KPN's promises to ETSI, 3GPP, and their respective members and affiliates to license its SEPs on FRAND terms and conditions constitute binding contractual obligations with u-blox and other implementers as intended third party beneficiaries; (ii) a judicial declaration that KPN has breached these obligations by demanding excessive, unfair, unreasonable, and discriminatory royalties from u-blox; (iii) a judicial decree enjoining KPN from further demanding excessive royalties from u-blox and u-blox's customers that are not consistent with KPN's FRAND obligations; (iv) a judicial accounting of what constitutes a FRAND royalty rate going forward in all respects consistent with KPN's commitment to license its patents identified as (or alleged to be) potentially or actually "essential" to the 2G, 3G and/or 4G standards; (v) a judicial determination that KPN's refusal to agree to a FRAND license is a breach of KPN's commitments to ETSI; (vi) a judicial determination that KPN's deceptive and deliberately false declarations to ETSI, and the disclosure misconduct of the prior owners (either alone or in combination), constitute violations of Section 2 of the Sherman Act; (viii) a declaration that patents associated with KPN's disclosure misconduct are not enforceable; and (x) all other relief to which u-blox may be entitled.

CLAIMS FOR RELIEF
FIRST CAUSE OF ACTION
(Breach Of Contract)

139. u-blox re-alleges and incorporates by reference the allegations set forth in the foregoing paragraphs.

140. KPN entered into contractual commitments with ETSI, 3GPP and their respective members, participants, and implementers relating to the 2G, 3G, and 4G

standards. As ETSI members, and to comply with ETSI's IPR Policy, KPN made binding commitments to ETSI, ETSI members, and third party implementers to disclose intellectual property rights relevant to the 2G, 3G, and 4G standards, and to grant irrevocable licenses to the alleged SEPs at issue on FRAND terms and conditions.

141. To the extent KPN was not the original owner and/or IPR declarant with respect to any of the alleged SEPs at issue, ETSI IPR Policy provides that the IPR obligations and commitments to ETSI and/or its members and third party beneficiaries of such alleged SEPs were transferred with the relevant patents to KPN when KPN took ownership of those patents. *See* Clause 6 of the ETSI IPR Policy (providing that it "shall be interpreted as encumbrances that bind all successors-in-interest").

142. The ETSI membership and standards setting activities affirmed by KPN and/or the prior owners of KPN's alleged SEPs, including the IPR declarations KPN and/or the prior owners made to comply with ETSI's IPR policy with respect to the alleged SEPs KPN is purporting to license, created an express and/or implied contract with ETSI and/or ETSI members, including an agreement that KPN would license those patents on FRAND terms and conditions. ETSI's IPR Policy does not limit the right to obtain a license on FRAND terms and conditions to ETSI members; third parties that are not ETSI members also have the right to be granted licenses under those patents on FRAND terms and conditions. Each and every party with products that implement the 2G, 3G, and/or 4G standards promulgated by ETSI is an intended third-party beneficiary of these contractual commitments, including u-blox, its suppliers, its customers, and their downstream manufacturers.

143. However, despite u-blox's good faith efforts to negotiate a license to KPN's alleged SEPs, KPN is refusing to offer u-blox a license on FRAND terms and conditions.

144. KPN has breached its FRAND obligations by refusing to license its

SEPs to u-blox at reasonable rates, with reasonable terms, and on a non-discriminatory basis.

145. As a result of KPN's contractual breach, u-blox has been injured in its business or property and is threatened with loss of profits, loss of customers and potential customers, and loss of goodwill and product image.

146. u-blox has suffered and will continue to suffer injury by reason of the acts, practices, and conduct of KPN alleged herein until and unless the Court enjoins such acts, practices, and conduct.

SECOND CAUSE OF ACTION
(Declaratory Judgment)

147. u-blox re-alleges and incorporates by reference the allegations set forth in the foregoing paragraphs.

148. KPN is contractually obligated to license its 2G, 3G, and 4G SEPs on FRAND terms and conditions. There is a dispute between the parties concerning whether KPN has offered u-blox a license to its SEPs on FRAND terms and conditions consistent with KPN's irrevocable commitments in declarations to ETSI and the referenced IPR policy of ETSI and/or 3GPP.

149. KPN has sued u-blox for patent infringement of at least some of the patents to be included in the license that KPN and u-blox are negotiating.

150. KPN has accused u-blox's customer, CalAmp, of infringing at least some of the patents to be included in the license that KPN and u-blox are negotiating.

151. KPN has accused u-blox of practicing the claims of at least some of the patents to be included in the license that KPN and u-blox are negotiating, including the '250 Patent and the '667 Patent.

152. As a result of the acts described herein, there exists a definite and concrete, real and substantial, justiciable controversy between u-blox and KPN

regarding what constitutes FRAND terms and conditions for a license to KPN's 2G, 3G, and 4G SEPs with respect to u-blox's products. This dispute is of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.

153. u-blox is entitled to a declaratory judgment that KPN has not offered license terms to u-blox conforming to applicable legal requirements, including failing to offer u-blox a license to its 2G, 3G, and/or 4G SEPs on FRAND terms and conditions. Moreover, u-blox is entitled to a declaratory judgment that sets the forward-looking FRAND terms and conditions, including but not limited to the FRAND royalty rate, for a license to KPN's 2G, 3G, and 4G SEPs.

THIRD CAUSE OF ACTION
(Violations Of Section 2 Of The Sherman Act, 15 U.S.C. § 2—Unlawful Monopolization)

154. u-blox re-alleges and incorporates by reference the allegations set forth in the foregoing paragraphs.

155. The Relevant Technology Markets, as defined in Paragraph 46, above, are valid relevant antitrust product markets. Specifically, the scope of the Relevant Technology Markets is congruent with each KPN's declared SEPs, wherein KPN necessarily has market power because the incorporation of a patent into a standard—not the mere issuance of a patent—makes the scope of the relevant antitrust market congruent with that of the patent.

156. The geographic scope of the Relevant Technology Markets alleged herein is worldwide. The 2G, 3G, and 4G standards at issue have been adopted globally and are subject to common FRAND obligations governing all SEPs incorporated into those standards, irrespective of the region or country in which a particular patent incorporated into a standard may have been issued. In addition, SEP licenses are typically granted on a worldwide basis in light of the global scope of the standards at issue. Finally, KPN itself is seeking to license all of its patents on a global, portfolio basis, and not based on each patent's country of issuance.

157. The Relevant Technology Markets alleged herein exhibit high barriers to entry because the standardization process eliminates the viability of alternative technologies as substitutes for as long as the standard remains in use.

158. u-box is informed and believes, and on that basis alleges, that KPN willfully acquired and maintained monopoly power in the Relevant Technology Markets, as described herein. Specifically, KPN acquired monopoly power by falsely committing to license its SEPs on FRAND terms to lull ETSI into adopting and/or continuing to keep KPN's technologies as part of ETSI's published standards. As a result of KPN's false FRAND licensing promises, ETSI forewent invoking the procedure set forth in clause 8 of ETSI's IPR Policy, which ETSI was required to do when SEPs are known to be unavailable on FRAND terms. Such procedure includes revising the standard if viable technologies existed, or ceasing to work on, withdrawing, or even failing to recognize any portion of an already-published standard for which FRAND licenses are, or become, unavailable. This procedure applies regardless of whether KPN declared its IPRs and related FRAND licensing commitments before or after the adoption of its technologies into the standards.

159. u-blox is informed and believes, and on that basis alleges, that ETSI relied on KPN's FRAND licensing promises in adopting or keeping the asserted SEPs in standards, and that, absent such affirmative promises, ETSI otherwise would not have agreed to adopt or keep a cellular standard that would have given KPN the power to effectively block companies from practicing the standards or to significantly raise the cost of FRAND licensing to non-FRAND levels. Indeed, the anticompetitive effects of KPN's breaches of its FRAND promises are the same whether it intentionally deceived ETSI at the time it made its FRAND promises, or later opportunistically breached its FRAND promises once its technologies became locked into the standards. Either way, KPN's technologies became locked into the standards because its FRAND licensing representations directly caused ETSI

participants to, at a minimum, forego the process by which they were required to evaluate and select alternatives to any essential technology known to be unavailable for FRAND licensing, or to abandon those portions of the standards for which no such alternative was available.

160. After KPN's technologies were locked into the standards, giving it monopoly power in its standardized technologies, KPN has leveraged its artificial monopoly power to hold up implementers including u-blox by among other things:

- Refusing to honor its obligation to license its alleged SEPs on FRAND terms and conditions;
- Seeking supra-competitive royalty rates from u-blox for a license to KPN's 2G, 3G, and 4G patents, including a demand for royalties based on the selling price of end-products that cost orders of magnitude more than u-blox's component products;
- Demanding u-blox pay royalties for alleged SEPs covering portions of the standards not practiced by u-blox's products;
- Demanding u-blox pay royalties for expired patents or patents that will expire during the course of the proposed license; and
- Demanding u-blox pay royalties for patents that KPN knew or should have known were not enforceable due to a its untimely disclosure of their IPR to ETSI/3GPP.

161. KPN's wrongful conduct prevents u-blox from obtaining access to alternative technologies in the Relevant Technology Markets to which u-blox is entitled at FRAND rates. KPN's monopolistic conduct raises u-blox's costs and threatens to reduce u-blox's ability to continue to invest in new and innovative products that practice the standards. The anticompetitive injury associated with KPN's unlawful monopolization also extends to consumers in the downstream markets in the form of higher prices, reduced innovation, and more limited choice for such standard-compliant products. Indeed, the necessary result of raising costs

to some competing manufacturers in the marketplace for standard-compliant products and diverting resources that otherwise would have fueled additional innovation is to limit consumer choices in complementary technologies and other technology used in standard-compliant products.

162. KPN's actions injure competition by excluding alternate technologies which could have been included in the standard. As a direct and proximate consequence of KPN's unlawful monopolization, customers of the Relevant Technology Markets and/or Input Technology Markets (e.g., implementers of the standards such as u-blox and/or u-blox's customers) face higher costs for access to cellular technologies necessary for the manufacture of standard-compliant products than they would have paid in a competitive marketplace.

163. Absent KPN's wrongful conduct, which resulted in alternate technologies being excluded from the relevant standards, u-blox and other implementors would be able to obtain a license to access necessary technology in the Relevant Technology Markets on fair, reasonable, and non-discriminatory terms.

164. As a result of KPN's anticompetitive breaches of its FRAND obligations, including its refusal to directly license u-blox has suffered and will continue to suffer injury to its business and property as alleged herein, and will suffer substantial and irreparable harm if the anticompetitive conduct alleged herein remains unredressed.

165. u-blox thus seeks an order as outlined in its Prayer for Relief, including an order setting a forward-looking FRAND rate for KPN's asserted SEPs.

FOURTH CAUSE OF ACTION
(Declaratory Judgment of Unenforceability of U.S. Patent No. 5,930,250)

166. u-blox re-alleges and incorporates by reference the allegations set forth in the foregoing paragraphs.

167. The Federal Circuit has found that even when a patent is otherwise valid, a member of an open standard setting organization may have impliedly

waived its right to assert infringement claims against standard-compliant products or components due to disclosure misconduct, thereby making the patent unenforceable. *See Core Wireless Licensing S.A.R.L. v. Apple, Inc.*, 899 F.3d 1356 (Fed. Cir. 2018); *Hynix Semiconductor Inc. v. Rambus Inc.*, 645 F.3d 1336, 1347–48 (Fed. Cir. 2011) (quoting *Qualcomm Inc. v. Broadcom Corp.* ("*Qualcomm II*"), 548 F.3d 1004, 1019 (Fed. Cir. 2008)). In particular, "[i]f the patentee obtained 'an unjust advantage' or 'an undeserved competitive advantage,' the implied waiver doctrine may justify a sanction of unenforceability of the patent at issue." *Conversant Wireless Licensing S.A.R.L. v. Apple, Inc.*, No. 15-cv-05008-NC, slip op., Dkt. 547, at 8 (N.D. Cal. May 10, 2019) (citing *Therasense*, 649 F.3d at 1292). A patent owner can obtain such an unfair advantage by failing to timely disclose an essential patent that covers technology proposed to a standard. *Id.*

168. The '250 Patent is subject to the promises KPN made and obligations KPN assumed when KPN included the '250 Patent in its IPR declaration to ETSI.

169. There is a dispute between the parties concerning whether certain u-blox products infringe one or more claims of the '250 Patent. KPN has asserted that u-blox products infringe one or more of the '250 Patent claims by virtue of practicing the 3G UMTS standard.

170. The '250 Patent is unenforceable due to KPN's disclosure misconduct. Namely, KPN had a duty to disclose to ETSI and/or 3GPP its IPR prior to the standard being adopted. KPN breached this duty by delaying for 15 years from the time the technical specification that purportedly incorporates the claimed technology of the '250 Patent (TS 23.140 v.3.0.1) was published on March 15, 2000 before declaring the '250 Patent to be essential in the IPR declaration KPN submitted to ETSI on April 27, 2015.

171. In view of the foregoing, u-blox is entitled to a declaration of the Court that the '250 Patent is unenforceable.

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FIFTH CAUSE OF ACTION
(Declaratory Judgment of Unenforceability of U.S. Patent No. 9,014,667)

172. u-blox re-alleges and incorporates by reference the allegations set forth in the foregoing paragraphs.

173. The '667 Patent is subject to the promises KPN made and obligations KPN assumed when KPN included the '667 Patent in its IPR declaration to ETSI.

174. There is a dispute between the parties concerning whether certain u-blox products infringe one or more claims of the '667 Patent. KPN has asserted that u-blox products infringe one or more of the '667 Patent claims by virtue of practicing the 3G UMTS standard.

175. The '667 Patent is unenforceable due to KPN's disclosure misconduct. Namely, KPN had a duty to disclose to ETSI and/or 3GPP its allegedly patented technology prior to the standard being adopted. KPN breached this duty by delaying for eight years from the time the technical specifications that purportedly incorporate the claimed technology of the '667 Patent (TS 22.368 v.10.4.0, TS 23.060 v.10.3.0, and TS 24.008 v.10.2.0) were published between March 28, 2011 and April 7, 2011, before declaring the '667 Patent to be essential in the IPR declaration KPN submitted to ETSI on February 11, 2019.

176. In view of the foregoing, u-blox is entitled to a declaration of the Court that the '667 Patent is unenforceable.

PRAYER FOR RELIEF

WHEREFORE, u-blox prays for relief as follows:

A. Adjudge and decree that KPN is liable for breach of its contractual commitments to ETSI;

B. Adjudge and decree that KPN has not offered u-blox a license to its 2G, 3G, and/or 4G SEPs under fair and reasonable rates, with fair and reasonable terms and conditions that are demonstrably free of any unfair discrimination;

C. Adjudge, set, and decree the forward-looking FRAND terms and

conditions that u-blox is entitled to for a license to KPN's 2G, 3G, and/or 4G SEPs and impose those forward-looking FRAND terms and conditions on the parties;

D. Enjoin KPN from demanding excessive royalties from u-blox that are not consistent with KPN's FRAND obligations;

E. Adjudge and decree that u-blox is entitled to a forward-looking license from KPN for any and all patents that KPN deems "essential" and/or has declared potentially "essential" to the 2G, 3G, and/or 4G standards under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination;

F. Enjoin KPN from enforcing its 2G, 3G, and/or 4G SEPs against u-blox and/or any of its downstream manufacturers or customers;

G. Adjudge and decree that KPN has violated Section 2 of the Sherman Act and enjoin KPN from further violations of that statute;

H. That all patents owned or acquired by KPN in violation of the Sherman Act be declared unenforceable;

I. Adjudge and decree that the '250 Patent is unenforceable;

J. Adjudge and decree that the '667 Patent is unenforceable;

K. Enter a judgment awarding u-blox its expenses, costs, and attorneys' fees with interest, under applicable laws;

L. Declare this case exceptional under Section 285 and award u-blox its attorneys' fees and costs with pre- and post-judgment interest;

M. For such other and further relief as the Court deems just and proper.

Dated: July 2, 2021

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