

1 Jean-Paul Ciardullo, CA Bar No. 284170
jciardullo@foley.com
2 **FOLEY & LARDNER LLP**
555 South Flower Street, Suite 3500
3 Los Angeles, CA 90071
Telephone: 213-972-4500
4 Facsimile: 213-486-0065

5 Eley O. Thompson (*pro hac vice forthcoming*)
ethompson@foley.com
6 **FOLEY & LARDNER LLP**
321 N. Clark Street
7 Suite 2800
Chicago, IL 60654-5313
8 Telephone: (312) 832-4359
9 Facsimile: (312) 832-4700

10 Kevin J. Malaney (*pro hac vice forthcoming*)
kmalaney@foley.com
11 **FOLEY & LARDNER LLP**
777 E. Wisconsin Avenue
12 Milwaukee, WI 53202
Telephone: (414) 271-2400
13 Facsimile: (414) 297-4900

14 **UNITED STATES DISTRICT COURT**
15 **CENTRAL DISTRICT OF CALIFORNIA**
16 **WESTERN DIVISION**

17 KONINKLIJKE PHILIPS N.V., and
18 PHILIPS NORTH AMERICA LLC,

19 *Plaintiffs,*

20 v.

21 TTE TECHNOLOGY, INC.,
22 TCL INDUSTRIES HOLDINGS CO.,
23 LTD., TCL ELECTRONICS HOLDINGS
24 LTD., TCL KING ELECTRICAL
25 APPLIANCES (HUIZHOU) CO. LTD.,
26 TCL MOKA INT’L LTD., SHENZHEN
27 TCL NEW TECHNOLOGY CO., LTD.,
28 TCL SMART DEVICE (VIETNAM) CO.,
LTD., AND TCL MOKA
MANUFACTURING, S.A. DE C.V.,

Defendants.

Case No. 2:20-cv-01406 CJC-MRW
FIRST AMENDED COMPLAINT
FOR PATENT INFRINGEMENT

JURY TRIAL DEMANDED

1 Koninklijke Philips N.V. (“Philips N.V.”) and Philips North America LLC (“Philips
2 North America”) (collectively, “Philips”), by their undersigned counsel, hereby allege,
3 with knowledge with respect to their own acts and on information and belief as to other
4 matters, the following in support of its Complaint against Defendants TTE Technology,
5 Inc. (d/b/a TCL USA) (“TCL USA”), TCL Industries Holdings Co., Ltd. (“TCL
6 Holdings”), TCL Electronics Holdings Ltd. (f/k/a TCL Multimedia Technology Holdings
7 Ltd.) (“TCL Electronics”), TCL King Electrical Appliances (Huizhou) Co. Ltd. (“TCL
8 King”), TCL Moka Int’l Ltd. (“TCL Moka”), Shenzhen TCL New Technology Co., Ltd.
9 (“TCL Technology”), TCL Smart Device (Vietnam) Co., Ltd. (“TCL Vietnam”), and TCL
10 Moka Manufacturing, S.A. de C.V. (“TCL Manufacturing”) (collectively, the “TCL
11 Group” or “TCL”).

12 **NATURE OF THE ACTION**

13 1. Philips brings this action to compel TCL to stop infringing Philips’s patents
14 and to compensate Philips for TCL’s past infringement.

15 2. Originally founded in 1891, Philips is now a world leader in technology and
16 innovation across many technological fields. For more than 100 years, Philips has
17 dedicated significant resources to research and development for the advancement of
18 technology used around the world. Philips strives to help the world through innovative and
19 relevant products serving both consumers and professionals with the goal of improving the
20 lives of billions of people. <https://www.usa.philips.com/>.

21 3. Philips also shares its innovation with others through, for example, its
22 pioneering role in offering access to its technology through licensing. In this way, Philips
23 has been able to share its innovations with many other companies. Licensing revenues
24 fund further research at Philips. Philips’s patent portfolio currently includes more than
25 60,000 patents.

26 4. For more than three quarters of a century, Philips has developed technology
27 improving televisions and set-top boxes for delivering and displaying content to users.
28 Exemplary products in this field pertain to television receivers and television display

1 devices, including ultra-high-definition televisions, media-receivers, and cable, satellite,
2 terrestrial or set-top boxes.

3 5. While some of Philips’s patents are asserted in this action, Philips has many
4 others covering televisions and related technology. The patented technologies asserted in
5 this action enable and enhance customer demand for products such as, for example: UHD
6 televisions and televisions able to present copyrighted content with HDCP 2.x (HDPC
7 refers to High-bandwidth Digital Content Protection) with locality check.

8 6. TCL was founded in the People’s Republic of China in the early 1980s and
9 continues as a partially state-owned enterprise of the Chinese government. TCL launched
10 in North America in 2014 and portrays itself as “America’s Fastest-Growing TV Brand.”
11 See, e.g., <https://tcl.com/eu/en/aboutTCL/the-group.html>; [https://www.tclusa.com/about-](https://www.tclusa.com/about-us/our-story)
12 [us/our-story](https://www.tclusa.com/about-us/our-story).

13 7. TCL branded televisions are available with a variety of features and
14 technology. For instance, TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV
15 includes 4K UHD pictures utilizing LEDs and HDMI HDCP 2.x with locality check:
16



26 Source: [https://www.tclusa.com/products/home-theater/6-series/tcl-55-class-6-series-4k-](https://www.tclusa.com/products/home-theater/6-series/tcl-55-class-6-series-4k-uhd-hdr-roku-smart-tv-55r617)
27 [uhd-hdr-roku-smart-tv-55r617](https://www.tclusa.com/products/home-theater/6-series/tcl-55-class-6-series-4k-uhd-hdr-roku-smart-tv-55r617)
28

1 8. For years, Philips has repeatedly offered to license rights in the Asserted
2 Patents¹ to TCL, but TCL has repeatedly refused to accept Philips’s offers to license.
3 TCL’s past and continuing sales of its devices i) willfully infringe Philips’s Asserted
4 Patents and ii) impermissibly take the significant benefits of Philips’s patented
5 technologies without compensation to Philips. TCL’s refusal to accept a royalty-bearing
6 license under the Asserted Patents has forced Philips to seek remediation to stop TCL’s
7 continuing willful infringement of the Asserted Patents and to be compensated for TCL’s
8 past willful infringement of the Asserted Patents.

9 **PARTIES**

10 9. Plaintiff Koninklijke Philips N.V. (formerly known as Koninklijke Philips
11 Electronics N.V.) is a corporation duly organized and existing under the laws of The
12 Netherlands, with its principal place of business at High Tech Campus 5, 5656 AE
13 Eindhoven, The Netherlands.

14 10. Plaintiff Philips North America LLC (formerly known as Philips Electronics
15 North America Corporation) is a limited liability company duly organized and existing
16 under the laws of Delaware. Philips North America LLC has subsidiaries with facilities
17 and employees in this District.

18 11. Defendant TTE Technology, Inc. (“TCL USA”) is a Delaware corporation,
19 having its principal place of business at 1860 Compton Avenue, Corona, California 92881
20 within this District. TCL USA provides sales, distribution, research, and development
21 support in North America as part of the TCL Group and for its parents, *e.g.*, TCL Corp. As
22 part of the TCL Group, TCL USA makes, uses, sells, offers for sale, and/or imports
23 televisions accused of infringement in this Complaint within the State of California and
24 this District. TCL USA operates in agency as part of the TCL Group and the other
25 Defendants.

26
27
28 ¹ The “Asserted Patents” refer to the patents identified below as forming the basis of Counts I-III.

1 12. Defendant TCL Industries Holdings Co., Ltd. (“TCL Industries”) is a Chinese
2 enterprise, and is located at 13/F, TCL Tower, 8 Tai Chung Road, Tsuen Wan, New
3 Territories Hong Kong. TCL Industries is a holding company and the ultimate parent of
4 Defendants TCL USA, TCL Electronics, TCL King, TCL Technology, TCL Vietnam, and
5 TCL Manufacturing. TCL Industries and the other named Defendants operate in agency
6 with each other as a group, the TCL Group. *See, e.g.*, [https://tcl.com/eu/en/aboutTCL/the-](https://tcl.com/eu/en/aboutTCL/the-group.html)
7 [group.html](https://tcl.com/eu/en/aboutTCL/the-group.html) (“The group has 75,000 employees, 28 Research and Development laboratories
8 and 22 production sites.”). TCL Industries with TCL Group induces its subsidiaries,
9 affiliates, retail partners, and customers in the making, using, selling, offering for sale,
10 and/or importing throughout the United States, including within this District, products,
11 such as televisions, accused of infringement. TCL Industries in agency with the TCL
12 Group provides a distribution channel of infringing products within this District and the
13 U.S. nationally.

14 13. Defendant TCL Electronics Holdings Ltd. (f/k/a TCL Multimedia Technology
15 Holdings Ltd.) (“TCL Electronics”) is an enterprise in the Grand Cayman, the Cayman
16 Islands, and is located at 7/F, TCL Building, 22 Science Park E, Hong Kong Science Park,
17 Hong Kong. TCL Electronics is a holding company and a parent of TCL’s television
18 business group, comprising subsidiaries that manufacture, market, and sell television
19 products, including televisions accused of infringement in this Complaint, globally,
20 including within the State of California and this District. TCL Electronics operates in
21 agency as part of the TCL Group. TCL Electronics operates its subsidiaries along with
22 itself as the TCL Group. TCL Electronics with TCL Group, either itself and/or through
23 the activities of its subsidiaries, makes, uses, sells, offers for sale, and/or imports
24 throughout the United States, including within this District, products, such as televisions,
25 accused of infringement.

26 14. Defendant TCL King Electrical Appliances (Huizhou) Co. Ltd. (“TCL King”)
27 is a Chinese enterprise, and is located at 78 Zhongkai Development Zone Huizhou, 516006,
28 China. As part of the TCL Group, TCL King manufactures televisions accused of

1 infringement in this Complaint and operates in concert with other members of the TCL
2 Group, including, for example, TCL USA, to import televisions accused of infringement
3 in this Complaint within the State of California and this District. TCL King regularly
4 imports and inserts into the stream of commerce televisions and related goods, such that
5 infringing televisions will be offered for sale and sold in the State of California and this
6 District. TCL King imports infringing televisions through the Port of Los Angeles and the
7 Port of Long Beach in this District. TCL King operates in agency as part of the TCL Group.

8 15. Defendant TCL Moka Int'l Ltd. ("TCL Moka") is a Chinese enterprise, and is
9 located at 13/F, TCL Tower, 8 Tai Chung Road, Tsuen Wan, New Territories Hong Kong.
10 TCL Moka regularly imports and inserts into the stream of commerce televisions and
11 components of televisions, such that infringing televisions will be offered for sale and sold
12 in the State of California and this District. TCL Moka imports infringing televisions
13 through the Port of Los Angeles and the Port of Long Beach in this District. TCL Moka
14 operates in agency as part of the TCL Group.

15 16. Defendant Shenzhen TCL New Technology Co., Ltd. ("TCL Technology") is
16 a Chinese enterprise, and is located at 5 Shekou Industrial Avenue Shenzhen, 518067
17 China. As part of the TCL Group, TCL Technology performs research and development
18 in connection with the televisions accused of infringement in this Complaint and operates
19 in concert with other members of the TCL Group, including, for example, TCL USA, to
20 manufacture and import televisions accused of infringement in this Complaint within the
21 State of California and this District.

22 17. Defendant TCL Smart Device (Vietnam) Co., Ltd. ("TCL Vietnam") is a
23 Vietnamese enterprise, and is located at No. 26 VSIP II-A, Street 32, Vietnam Singapore
24 Industrial Park II-A, Tan Binh Commune, Bac Tan Uyen District, Binh Duong Province,
25 Vietnam. As part of the TCL Group, TCL Vietnam manufactures televisions accused of
26 infringement in this Complaint and operates in concert with other members of the TCL
27 Group, including, for example, TCL USA, to import televisions accused of infringement
28 in this Complaint within the State of California and this District.

1 18. Defendant TCL Moka Manufacturing, S.A. de C.V. (“TCL Manufacturing”)
2 is a Mexican enterprise, and is located at Calle 4ta. No. 55, Cd. Industrial Otay, Tijuana
3 22500, Mexico. As part of the TCL Group, TCL Manufacturing manufactures televisions
4 accused of infringement in this Complaint and operates in concert with other members of
5 the TCL Group, including, for example, TCL USA, to import televisions accused of
6 infringement in this Complaint within the State of California and this District.

7 19. Defendants do business as a collective whole as the TCL Group. Defendants
8 share the same executives, management, advertising platforms, facilities, and distribution
9 chains, and operate as a unitary business venture under common ownership to manufacture
10 and distribute the products accused of infringement. Defendants are jointly and severally
11 liable for the acts of patent infringement alleged herein, and the actions of each Defendant
12 can be attributed to the other Defendants.

13 **JURISDICTION AND VENUE**

14 20. This is a civil action for patent infringement arising under the Patent Laws of
15 the United States, Title 35, United States Code § 100, *et seq.*, including 35 U.S.C. § 271.

16 21. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331, 1338(a),
17 2201, and 2202.

18 22. This Court has personal jurisdiction over TCL USA because it has a regular
19 and established place of business in the State of California and this District.

20 23. This Court has general and specific personal jurisdiction over Defendants
21 because Defendants have, directly or through intermediaries, committed acts within this
22 State and this District giving rise to this action and/or have established minimum contacts
23 with this forum as a result of business conducted within this State and this District and
24 subsidiaries registered to do business in this State as agents, such that the exercise of
25 jurisdiction would not offend traditional notions of fair play and substantial justice.
26 Defendants have placed, and are continuing to place, infringing products into the stream of
27 commerce, via an established distribution channel, with the knowledge and/or
28 understanding that such products are sold in the State of California, including in this

1 District. Defendants have derived substantial revenues from its infringing acts occurring
2 within the State of California and within this District. TCL Group's presence in this
3 District, including through TCL USA, requires it to pay taxes in the State of California.
4 TCL Group, including though TCL USA, is licensed to do business in the State of
5 California.

6 24. Personal jurisdiction is proper because Defendants have committed acts of
7 infringement in this District. This Court has personal jurisdiction over Defendants because,
8 *inter alia*, this action arises from activities Defendants directed towards the State of
9 California and this District.

10 25. Exercising personal jurisdiction over Defendants in this District would not be
11 unreasonable given Defendants' contacts in this District, the interest in this District of
12 resolving disputes related to products sold herein, and the harm that would occur to
13 Plaintiffs.

14 26. In addition, Defendants have knowingly induced and continue to knowingly
15 induce infringement within this District by advertising, marketing, offering for sale and/or
16 selling devices pre-loaded with infringing functionality within this District, to consumers,
17 customers, manufacturers, distributors, resellers, partners, and/or end users, and providing
18 instructions, user manuals, advertising, and/or marketing materials which facilitate, direct
19 or encourage the use of infringing functionality with knowledge thereof.

20 27. Personal jurisdiction also exists specifically over each of the Defendants
21 because each, directly or through affiliates, subsidiaries, agents, or intermediaries, transacts
22 business in this State or purposefully directed at this State (including, without limitation,
23 business locations located in this District and/or retail stores including Best Buy and
24 Walmart) by making, importing, offering to sell, selling, and/or having sold infringing
25 products within this State and District or purposefully directed at this State or District,
26 including through the Port of Los Angeles and the Port of Long Beach.

27 28. Personal jurisdiction also exists specifically over each of the Defendants
28 because they have overlapping executives, interlocking corporate structures, and close

1 relationships as manufacturer, importer, and distributor of the products accused of
2 infringement.

3 29. To the extent any foreign Defendant is not subject to jurisdiction in any state's
4 court of general jurisdiction, exercising jurisdiction over the defendant in this State and
5 this District would be consistent with due process and this State's long-arm statute and
6 under national contacts in light of facts alleged in this Complaint.

7 30. In addition, each of the Defendants, directly or through affiliates, subsidiaries,
8 agents, or intermediaries, places infringing products into the stream of commerce knowing
9 they will be sold and used in the State of California, and economically benefits from the
10 retail sale of infringing products in this State. For example, Defendants' products have
11 been sold and are available for sale in this District at Best Buy and Walmart retail stores,
12 and are also available for sale and offered for sale in this District through online retailers
13 such as Best Buy, Walmart, and Amazon. Defendants also advertise their infringing
14 products to consumers in California and this District through the TCL USA website. *See*,
15 *e.g.*, <https://www.tclusa.com/products/home-theater>.

16 31. Venue is proper under 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b) because
17 Defendants are registered in the State of California and reside in this District, or are foreign
18 entities amenable to suit in any U.S. district, including substantial additional activities in
19 this District as alleged herein (*see, e.g.*, paragraphs 11-22). Defendants have also engaged
20 and continue to engage in infringing acts in the State of California and this District such as
21 alleged herein (*see, e.g.*, paragraphs 26-33).

22 32. Venue is proper over TCL USA because (1) it has committed acts of direct
23 and indirect infringement in this District, (2) it has a regular and established place of
24 business in this District including a principal place of business at 1860 Compton Avenue,
25 Corona, California 92881 and other warehousing facilities in the State of California, and/or
26 (3) it has transacted business in this District, including offering to sell, selling, having sold
27 and/or importing products that infringe at least one of the Asserted Patents.
28

1 33. Venue is proper over Defendants TCL Holdings, TCL Electronics, TCL King,
2 TCL Moka, TCL Technology, TCL Vietnam, and TCL Manufacturing at least because (1)
3 this is the District in which a substantial part of the events giving rise to the claim occurred,
4 (2) they are not resident in the United States, and (3) they are all subject to personal
5 jurisdiction in this District.

6 **FACTUAL BACKGROUND**

7 **Philips Background, Innovation Leadership and Asserted Patents**

8 34. Philips is a world-renowned company that engages in research and
9 development in numerous technological fields. One of these fields pertains to televisions
10 and set-top boxes for delivering and displaying content to users. Exemplary products in
11 this field include television receivers and television display devices, including high-
12 definition televisions, media-receivers, and cable, satellite, terrestrial or set-top boxes. The
13 Asserted Patents derive from Philips's efforts in this field and claim protection for, among
14 other things, delivering and displaying content.

15 **U.S. Patent No. 7,052,152**

16 35. On May 30, 2006, the United States Patent and Trademark Office ("USPTO")
17 issued U.S. Patent No. 7,052,152 (the '152 patent) to inventors Gerard Harbers and
18 William D. Collins, III. The '152 patent bears the title "LCD Backlight Using Two-
19 Dimensional Array LEDs." A true and accurate copy of the '152 patent is attached as
20 Exhibit A.

21 36. Plaintiff Philips North America is the owner and assignee of all rights, title, and
22 interest in the '152 Patent, and holds the right to sue and recover damages for infringement
23 thereof, including current and past infringement.

24 **U.S. Patent No. 9,590,977**

25 37. On March 7, 2017, the USPTO issued U.S. Patent No. 9,590,977 (the '977
26 Patent) to inventor Franciscus L. A. J. Kamperman. The '977 Patent bears the title "Secure
27 Authenticated Distance Measurement." A true and accurate copy of the '977 patent is
28 attached as Exhibit B.

1 38. Plaintiff Philips N.V. is the owner and assignee of all rights, title, and interest
2 in the '977 Patent, and holds the right to sue and recover damages for infringement thereof,
3 including current and past infringement.

4 **U.S. Patent No. 10,298,564**

5 39. On May 21, 2019, the USPTO issued U.S. Patent No. 10,298,564 (the '564
6 Patent) to inventor Franciscus L. A. J. Kamperman. The '564 Patent bears the title "Secure
7 Authenticated Distance Measurement." A true and accurate copy of the '564 patent is
8 attached as Exhibit C.

9 40. Plaintiff Philips N.V. is the owner and assignee of all rights, title, and interest
10 in the '564 Patent, and holds the right to sue and recover damages for infringement thereof,
11 including current and past infringement.

12 **TCL Background and Infringement**

13 41. While other manufacturers using the patented technology have taken licenses
14 to the Asserted Patents (or foreign family patents), Defendants have refused to agree to any
15 licensing terms to date and continue to infringe the claims of the Asserted Patents. TCL
16 has received multiple communications from Philips concerning the Asserted Patents and
17 its infringement since approximately 2012, but it has failed to cease its infringing activities
18 or to provide any response to Philips. Such communications included letters to top
19 management at TCL and representatives including identification of infringement.

20 42. Instead of curtailing its infringement, TCL has increased its infringement
21 since learning of the Asserted Patents and commencing its infringement.

22 43. Defendants have refused to accept a license to any of the Asserted Patents.
23 Instead, Defendants knowingly and intentionally have continued to make, use, sell, offer
24 to sell, and import infringing products.

Accused Products

1
2 44. Defendants are, and have been, engaged in manufacturing and/or having
3 manufactured, selling and/or offering to sell within the United States, using in the United
4 States, and/or importing into the United States televisions containing functionality covered
5 by one or more claims of the Asserted Patents (“the Accused Devices”).

6 45. Non-limiting examples of the Accused Devices manufactured, sold, offered
7 for sale, used, and/or imported by or for Defendants include various TCL-branded 4K UHD
8 LED televisions having HDMI with HDCP 2.x., including, without limitation, TCL
9 55R617 55-Inch 4K Ultra HD Roku Smart LED TV. These televisions have been sold
10 and/or offered for sale within this District, without limitation, through retail stores and/or
11 online retailers, such as Walmart and Amazon. *See, e.g.,*
12 https://www.walmart.com/ip/TCL-55R617-55-Inch-4K-Ultra-HD-Roku-Smart-LED-TV-2018-Model/226776819?wmlspartner=wlp&selectedSellerId=149&adid=22222222227000000000&wl0=&wl1=g&wl2=c&wl3=42423897272&wl4=pla-51320962143&wl5=9059754&wl6=&wl7=&wl8=&wl9=pla&wl10=108214235&wl11=online&wl12=226776819&veh=sem&gclid=EAiaIQobChMInsno9aOJ5wIVjJ-zCh3ngwg3EAQYASABEGKAV_D_BwE and <https://www.amazon.com/TCL-55R617-55-Inch-Ultra-Smart/dp/B079N9HDNQ>.
13
14
15
16
17
18

19 46. Defendants purposefully direct sales and offers for sale of the Accused
20 Devices, including those specifically identified below, toward the State of California,
21 including this District.

22 47. Defendants maintain established distribution channels within the United
23 States that permit Defendants to ship the Accused Devices, including those specifically
24 identified in this Complaint, to the State of California, including this District.
25
26
27
28

COUNT I

INFRINGEMENT OF U.S. PATENT NO. 7,052,152

1
2
3 48. The allegations of each of the foregoing paragraphs are incorporated by
4 reference as if fully set forth herein.

5 49. The '152 Patent is valid and enforceable.

6 50. Defendants, in violation of 35 U.S.C. § 271, have infringed and continue to
7 infringe at least claim 16 of the '152 Patent by making, using, offering to sell, selling,
8 and/or importing the Accused Devices that embody and/or practice the features claimed in
9 the '152 Patent, either literally and/or under the doctrine of equivalents, either individually
10 and/or jointly with their customers selling, offering to sell, and/or using the Accused
11 Devices. Defendants' Accused Devices include, but are not limited to, TCL-branded 4K
12 UHD LED televisions. Exemplary infringing TCL-branded 4K UHD LED televisions
13 include, without limitation, TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV and
14 the like.

15 51. The Accused Devices infringe one or more claims of the '152 Patent. For
16 example, claim 16 of the '152 Patent is directed to a display device that includes a housing,
17 an array of LEDs arranged in a rectangular grid having a ratio of height to a pitch of the
18 LEDs between approximately 0.3 to 1.2, and a diffuser. The Accused Devices embody the
19 claimed invention, without limitation, by including the claimed backlight structure with
20 LEDs arranged in a pitch falling within the claimed range. Defendants' Accused Devices
21 infringe each element of at least claim 16 of the '152 Patent, either literally and/or under
22 the doctrine of equivalents.

23 52. As an example, TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV
24 infringes claim 16 of the '152 Patent under 35 U.S.C. § 271. TCL 55R617 55-Inch 4K
25 Ultra HD Roku Smart LED TV is a display device having a display housing including
26 reflective surfaces and a top opening through which a liquid crystal display ("LCD") panel
27 is backlit. The TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV further comprises
28 LEDs, arranged in an array, supported on a reflective bottom surface in the housing. The

1 LEDs utilized in the TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV television
2 are arranged in a rectangular array such that the LED-to-LED distance is larger than the
3 width of a single LED. An LED-to-LED pitch of the LEDs utilized in the TCL 55R617
4 55-Inch 4K Ultra HD Roku Smart LED TV is approximately 52 mm. Therefore, the height-
5 to-pitch ratio is approximately 0.37, which is between approximately 0.3 and 1.2.
6 Accordingly, the TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV satisfies each
7 limitation of claim 16 of the '152 Patent.

8 53. As yet a further example, the method of constructing the TCL 55R617 55-
9 Inch 4K Ultra HD Roku Smart LED TV infringes claim 30 of the '152 Patent under 35
10 U.S.C. § 271(g) by offering to sell, selling, or using within the United States a product
11 which is made by the patented process. Similar to and in addition to the analysis provided
12 in connection with claim 16, the construction process for the TCL 55R617 55-Inch 4K
13 Ultra HD Roku Smart LED TV includes providing a housing including reflective surfaces
14 and a top opening through which a LCD panel is backlit, providing LEDs, arranged in an
15 array, supported on a reflective bottom surface in the housing, where the LEDs utilized in
16 the TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV are arranged in an array such
17 that the LED-to-LED distance is larger than the width of a single LED. An LED-to-LED
18 pitch of the LEDs utilized in the TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV
19 is approximately 52 mm. Therefore, the height-to-pitch ratio is approximately 0.37, which
20 is between 0.3 and 1.2. Further, the product made by the patent process is not materially
21 changed by subsequent processes and does not become a trivial and nonessential
22 component of another product. Accordingly, the TCL 55R617 55-Inch 4K Ultra HD Roku
23 Smart LED TV satisfies each limitation of claim 30 of the '152 Patent.

24 54. Defendants have had actual knowledge of the '152 Patent at least by virtue of
25 correspondence and communications from Philips at least as early as February 2012 and
26 continuing thereafter through the present (including the original complaint in this action),
27 providing notice of the '152 Patent, offering to discuss licensing of the '152 Patent, and
28 detailing Defendants' infringement.

1 55. Philips is entitled to recover damages under 35 U.S.C. § 284 to adequately
2 compensate for Defendants' infringement. Defendants' ongoing infringement is willful
3 and deliberate, as Defendants became aware of the infringing nature of the Accused
4 Devices at least by February 2012 and continuing thereafter through the present.

5 56. Philips has been and continues to be damaged and irreparably harmed by
6 Defendants' infringement of the '152 Patent. This irreparable harm will continue unless
7 this Court enjoins Defendants.

8 57. Defendants' conduct in infringing the '152 Patent renders this case
9 exceptional within the meaning of 35 U.S.C. § 285.

10 **COUNT II**

11 **INFRINGEMENT OF U.S. PATENT NO. 9,590,977**

12 58. The allegations of each of the foregoing paragraphs are incorporated by
13 reference as if fully set forth herein.

14 59. The '977 Patent is valid and enforceable.

15 60. Defendants, in violation of 35 U.S.C. § 271, have infringed and continue to
16 infringe at least claim 26 of the '977 Patent by making, using, offering to sell, selling,
17 and/or importing the Accused Devices that embody and/or practice the features claimed in
18 the '977 Patent, either literally and/or under the doctrine of equivalents, either individually
19 and/or jointly with their customers selling, offering to sell, and/or using the Accused
20 Devices. Defendants' Accused Devices include, but are not limited to, TCL-branded
21 televisions having HDMI with HDCP 2.x as well as methods associated therewith.
22 Exemplary infringing TCL-branded televisions having HDMI with HDCP 2.x include,
23 without limitation, TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV.

24 61. The Accused Devices as well as methods associated therewith infringe one or
25 more claims of the '977 Patent. For example, claim 26 of the '977 Patent is directed to a
26 method for a second device controlling of receiving a protected content. The Accused
27 Devices perform the claimed method, without limitation, by sending a certificate to a first
28 device, the certificate providing information regarding the second device responsive to a

1 request; receiving a first signal from the first device after the first device determines based
2 on the certificate whether the second device is compliant with a set of compliance rules,
3 wherein the second signal is derived using a secret known by the first device; sending a
4 second signal to the first device after receiving the first signal; generating a secure
5 authenticated channel using the secret, the secret being transmitted using a transfer
6 protocol, said transfer protocol selected the group consisting of a key transport protocol, a
7 key management protocol and a key exchange agreement; receiving over the secure
8 authenticated channel the protected content after the first device determines that the second
9 signal is derived using the secret and a time between a transmission of the first signal and
10 receipt of the second signal by the first device is less than a predetermined time. The
11 Accused Devices embody the claimed invention, without limitation, by including
12 functionality that supports technology for streaming multimedia between devices,
13 including hardware and software that perform secure, authenticated distance measurements
14 in compliance with at least the HDCP 2.0 specification or higher. This hardware and
15 software and methods associated therewith infringes each element of at least claim 26 of
16 the '977 Patent, either literally and/or under the doctrine of equivalents.

17 62. For example, the HDCP-2.2-enabled TCL 55R617 55-Inch 4K Ultra HD
18 Roku Smart LED TV infringes claim 26 of the '977 Patent under 35 U.S.C. § 271.
19 Specifically, the HDCP-2.2-enabled TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED
20 TV performs a method of controlling receiving protected content. Furthermore, the HDCP-
21 2.2-enabled TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV sends a certificate to
22 a first device, where the certificate provides information regarding the second device. For
23 example, during the Authentication and Key Exchange stage, the second device / HDCP
24 receiver device sends its public certificate to the first device / HDCP transmitter device;
25 furthermore, the first device / HDCP transmitter device verifies the public certificate of the
26 receiver device using a public key from an authenticating agency. The Accused Devices
27 further receive a first signal from the first device after the first device determines based on
28 the certificate whether the second device is compliant with a set of compliance rules,

1 wherein the second signal is derived using a secret known by the first device. For example,
2 the Accused Devices receive a first signal from a first device after the first device
3 determines, based on information obtained from the certificate, that the receiving device is
4 compliant. If the certificate is verified, the first device / HDCP transmitter device retrieves
5 the stored master key (*e.g.*, k_m) and sends an encrypted message with the master key (*e.g.*,
6 k_m) to the second device / HDCP receiver device. The Accused Devices further send a
7 second signal to the first device after receiving the first signal. For example, after the
8 Authentication and Key Exchange stage, where the HDCP receiver device sends its public
9 certificate to the HDCP transmitter device, the first device / HDCP transmitter device
10 verifies the public certificate of the receiver device using a public key from an
11 authenticating agency. If the certificate is verified, the HDCP transmitter device retrieves
12 the stored master key (*e.g.*, k_m) and sends an encrypted message with the master key (*e.g.*,
13 k_m) to the HDCP receiver device. Furthermore, the HDCP authentication protocol includes
14 a locality check, which performs a round trip time measurement between a first
15 communication device and a second communication device. A first signal (*e.g.*, r_n) is
16 transmitted to the second device at a first time and a second signal (*e.g.*, L') is transmitted
17 to the first device at a second time. The HDCP round trip time measurement further
18 generates a third signal (*e.g.*, L) using a common secret (*e.g.*, the master key k_m). The
19 HDCP round trip time measurement further determines whether the second signal and the
20 third signal are identical (*e.g.*, $L=L'$). The HDCP round trip time measurement further
21 generates the round trip time as the difference between the first time and the second time,
22 checking whether the round trip time is within a predefined interval (*e.g.*, 20 ms as in
23 section 2.3 of HDCP 2.2). Further, the receiver device sends its public certificate to the
24 transmitter device and the transmitter device verifies the public certificate of the receiver
25 device using a public key from an authenticating agency. Finally, after authenticating the
26 second device, the master key or common secret is encrypted and securely exchanged from
27 the transmitter device to the receiver device. In addition, the common secret used in the
28 method implemented by HDCP 2.2, as included in the HDCP-2.2-enabled TCL 55R617

1 55-Inch 4K Ultra HD Roku Smart LED TV, is used for generating a secure channel
2 between the HDCP transmitter device and the HDCP receiver device. In addition, the
3 HDCP-2.2-enabled TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV is further
4 arranged to use the secret to generate a secure authenticated channel between the first
5 device and the second device and to use the secure authenticated channel to receive the
6 protected content. Accordingly, the HDCP-2.2-enabled TCL 55R617 55-Inch 4K Ultra
7 HD Roku Smart LED TV satisfies each limitation of claim 26 of the '977 Patent.

8 63. Defendants have indirectly infringed and continue to indirectly infringe at
9 least claim 26 of the '977 Patent under 35 U.S.C. § 271(b), either literally and/or under the
10 doctrine of equivalents, by actively inducing their customers to sell, offer to sell, and/or
11 use the Accused Devices to directly infringe the '977 Patent. This includes Defendants
12 taking active steps to encourage and facilitate others' direct infringement of the '977 Patent
13 with knowledge or willful blindness. These affirmative acts include, without limitation,
14 advertising, marketing, promoting, offering for sale and/or selling the above-referenced
15 devices, with software containing infringing functionality, to consumers, customers,
16 manufacturers, distributors, resellers, partners, and/or end users, and providing
17 instructions, user manuals, advertising, and/or marketing materials that facilitate, direct, or
18 encourage the direct infringement of the '977 Patent by others with knowledge thereof.

19 64. Defendants have contributed to the infringement of, and continue to contribute
20 to the infringement of, at least claim 26 of the '977 Patent under 35 U.S.C. § 271(c), either
21 literally and/or under the doctrine of equivalents, by selling, offering to sell, and/or
22 importing within or into the United States the Accused Devices, including those that
23 implement secure authenticated distance measurement to stream content. The hardware
24 and software used to perform this distance measurement constitute a material part of the
25 invention of the '977 Patent, are known by Defendants to be especially made or adapted
26 for use in infringing the patent, and are not a staple article or commodity of commerce
27 suitable for substantial non-infringing use.

1 65. The claims of the '977 Patent, when viewed as a whole from the perspective
2 of a person of ordinary skill in the art, including as an ordered combination, address
3 difficult technical challenges in the field of authenticating receiving devices and securely
4 measuring distance between transmitting and receiving devices for the purposes of securely
5 distributing content between transmitting and receiving devices. A person of ordinary skill
6 in the art would recognize that the claims of the '977 Patent were not well known, routine,
7 or conventional at the time of the invention, almost eighteen years ago, and represent
8 specific improvements over the prior art and prior existing systems and methods.

9 66. As would be recognized by a person of ordinary skill in the art, at the time the
10 inventions claimed in the '977 Patent were conceived, there were no systems that
11 authenticated receiving devices, established secure channels between transmitting and
12 receiving devices, securely measured distance between the transmitting and receiving
13 devices, and allowed content access by receiving devices if the measured distance was
14 within a predetermined threshold. For example, digital content distribution was at nascent
15 stages and the prevailing methods of storing such content was via CDs and DVDs. *See Ex.*
16 *B*, col. 1, ll. 42-62. While secure methods of transport had been developed (*id.* col. 2, ll.
17 12-16), there was no consideration in such methods for authentication of content ownership
18 and measuring the distance over which the content owner wished to transmit the content.
19 *Id.* col. 2, ll. 26-28. As a use case example, there was no known way for a neighbor to visit
20 his neighbor and view the content he owns on his neighbor's television. *Id.* col. 2, ll. 20-
21 25.

22 67. As such, as of the priority date of the '977 Patent, there was no ready way for
23 content owners to be able to authenticate a receiving device, establish a secure channel
24 between their transmitting and receiving devices, and securely measure distance between
25 the transmitting and receiving devices such that their content can be accessed by the
26 receiving devices if within an allowed distance. *Id.* col. 2, ll. 26-28, 39-41.

27 68. A person of ordinary skill in the art would recognize that the claims of the
28 '977 Patent are directed to specific improvements in the secure transmission of digital

1 content. Among other things, the claimed inventions improve functionality of content
2 storage and delivery devices by allowing more flexible content access capabilities while
3 maintaining the security and integrity of the underlying content. The claimed inventions
4 provide systems for authenticating receiver devices and establishing a secure channel
5 between transmitting and receiver devices. The claimed inventions provide systems for
6 securely measuring the distance between transmitting and receiving devices by using
7 transmission times and shared secret keys. The claimed systems provide systems that allow
8 access of content over a secure channel if the securely measured distance is within a
9 predetermined distance.

10 69. To achieve such inventions, the inventor did more than simply apply current
11 technology to an existing problem. The invention, as embodied in at least claim 26, was a
12 significant advancement in digital content transmission and these noted improvements over
13 the prior art represent meaningful limitations and/or inventive concepts based upon the
14 state of the art at the time of these inventions. Further, including in view of these specific
15 improvements, the inventions claimed in the '977 Patent, when viewed as a whole, are not
16 routine, well-understood, conventional, generic, existing, commonly used, well-known,
17 previously known, or typical almost eighteen years ago, including because until the
18 inventions of the claims of the '977 Patent, the claimed inventions were not existing or
19 even considered in the field.

20 70. The '977 Patent, and claim 26 in particular, comprises a non-conventional and
21 non-generic arrangement of components and method that is a technical improvement to the
22 storage and secure transmission of digital content to authenticated devices over a limited
23 distance, including those improvements noted above.

24 71. The inventions claimed in the '977 Patent are necessarily rooted in computer
25 technology, *i.e.*, the storage and secure transmission of digital content to authenticated
26 devices over a limited distance, and comprise technological improvements over prior
27 technologies in order to provide new functionality and overcome inefficiencies, including
28

1 those noted above. The claimed solutions amount to an inventive concept for particular
2 problems and inefficiencies noted above.

3 72. By virtue of the correspondence and communications from Philips, at least as
4 early as January 10, 2017 and continuing thereafter through the present (including the
5 original complaint in this action), detailing Defendants' infringement of U.S. Patent No.
6 8,886,939 (the '939 Patent) and offering to discuss licensing of the '939 Patent and other
7 patents, Defendants knew or should have known of the '977 Patent, a continuation patent
8 that claims priority to the '939 Patent, upon its issuance, consistent with industry custom
9 and practice.

10 73. Philips is entitled to recover damages under 35 U.S.C. § 284 to adequately
11 compensate for Defendants' infringement. Defendants' ongoing infringement is willful
12 and deliberate, as Defendants became or should have become aware of the infringing nature
13 of the Accused Devices upon the issuance of the '977 Patent and continuing thereafter
14 through the present including by correspondence and communications from Philips.

15 74. Philips has been and continues to be damaged and irreparably harmed by
16 Defendants' infringement of the '977 Patent. This irreparable harm will continue unless
17 this Court enjoins Defendants.

18 75. Defendants' conduct in infringing the '977 Patent renders this case
19 exceptional within the meaning of 35 U.S.C. § 285.

20 **COUNT III**

21 **INFRINGEMENT OF U.S. PATENT NO. 10,298,564**

22 76. The allegations of each of the foregoing paragraphs are incorporated by
23 reference as if fully set forth herein.

24 77. The '564 Patent is valid and enforceable.

25 78. Defendants, in violation of 35 U.S.C. § 271, have infringed and continue to
26 infringe at least claim 14 of the '564 Patent by making, using, offering to sell, selling,
27 and/or importing the Accused Devices that embody and/or practice the features claimed in
28 the '564 Patent, either literally and/or under the doctrine of equivalents, either individually

1 and/or jointly with their customers selling, offering to sell, and/or using the Accused
2 Devices. Defendants' Accused Devices include, but are not limited to, TCL-branded
3 televisions having HDMI with HDCP 2.x. Exemplary infringing TCL-branded televisions
4 having HDMI with HDCP 2.x include, without limitation, TCL 55R617 55-Inch 4K Ultra
5 HD Roku Smart LED TV.

6 79. The Accused Devices infringe one or more claims of the '564 Patent. For
7 example, claim 14 of the '564 Patent is directed to a device for determining whether data
8 stored on a first device can be accessed by performing secure authenticated distance
9 measurement. The Accused Devices embody the claimed invention, without limitation, by
10 including functionality that supports technology for streaming multimedia between
11 devices, including hardware and software that perform secure, authenticated distance
12 measurements in compliance with at least the HDCP 2.0 specification or higher. This
13 hardware and software infringes each element of at least claim 14 of the '564 Patent, either
14 literally and/or under the doctrine of equivalents.

15 80. For example, TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV
16 infringes claim 14 of the '564 Patent under 35 U.S.C. § 271. Specifically, an HDCP-2.2-
17 enabled TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV serves as a HDCP
18 receiver device or second device. The HDCP-2.2-enabled TCL 55R617 55-Inch 4K Ultra
19 HD Roku Smart LED TV, as an HDCP receiver device, is capable of receiving delivery of
20 a protected content from a first device or HDCP transmitter device. For example,
21 successful completion of an Authentication and Key Exchange and a locality check, which
22 performs a round trip time measurement, affirms to the HDCP transmitter device that the
23 HDCP receiver device is authorized to receive protected content. The HDCP-2.2-enabled
24 TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV includes a processor circuit,
25 which is capable of executing instructions, including to provide a certificate to the first
26 device prior to receiving a first signal from the first device and to receive the first signal
27 when the certificate indicates that the second device is compliant with at least one
28 compliance rule. For example, during the Authentication and Key Exchange stage, the

1 second device / HDCP receiver device sends its public certificate to the first device / HDCP
2 transmitter device; furthermore, the first device / HDCP transmitter device verifies the
3 public certificate of the receiver device using a public key from an authenticating agency.
4 If the certificate is verified, the first device / HDCP transmitter device retrieves the stored
5 master key (*e.g.*, k_m) and sends an encrypted message with the master key (*e.g.*, k_m) to the
6 second device / HDCP receiver device. Furthermore, the processor circuit of the HDCP-
7 2.2-enabled TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV is capable of creating
8 a second signal (*e.g.*, $LC_Send_L_prime$), which is derived from a secret known by itself
9 / the second device. The processor circuit of the HDCP-2.2-enabled TCL 55R617 55-Inch
10 4K Ultra HD Roku Smart LED TV provides the second signal to the first device / HDCP
11 transmitter device after receiving the first signal, wherein the second signal is received by
12 the first device / HDCP transmitter device. For example, the HDCP-2.2-enabled TCL
13 55R617 55-Inch 4K Ultra HD Roku Smart LED TV transmits the response (*e.g.*,
14 $LC_Send_L_prime$), which is sent to and received by the first device / HDCP transmitter
15 device as part of the Authentication and Key Exchange and locality check stages. Finally,
16 the processor circuit of the HDCP-2.2-enabled TCL 55R617 55-Inch 4K Ultra HD Roku
17 Smart LED TV is capable of receiving the protected content from the first device / HDCP
18 transmitter device when it determines that the HDCP-2.2-enabled TCL 55R617 55-Inch
19 4K Ultra HD Roku Smart LED TV is derived from the secret and a time between the
20 sending of the first signal and the receiving of the second signal is less than a predetermined
21 time (*e.g.*, 20 ms requirement of HDCP 2.2). Further, the secret is securely provided to the
22 second device by the first device. For example, the first device / HDCP transmitter device
23 retrieves the stored master key (*e.g.*, k_m) and sends the master key (*e.g.*, k_m) to the second
24 device / HDCP receiver device via a secure, encrypted message. In addition, the HDCP-
25 2.2-enabled TCL 55R617 55-Inch 4K Ultra HD Roku Smart LED TV is used for generating
26 a secure channel or communication path between the HDCP transmitter device and the
27 HDCP receiver device upon successful completion of the Authentication and Key
28 Exchange and locality check stages. Accordingly, the HDCP-2.2-enabled TCL 55R617

1 55-Inch 4K Ultra HD Roku Smart LED TV satisfies each limitation of claim 14 of the '564
2 Patent.

3 81. Defendants have indirectly infringed and continue to indirectly infringe the
4 '564 Patent under 35 U.S.C. § 271(b), either literally and/or under the doctrine of
5 equivalents, by actively inducing their customers to sell, offer to sell, and/or use the
6 Accused Devices to directly infringe the '564 Patent. This includes Defendants taking
7 active steps to encourage and facilitate others' direct infringement of the '564 Patent with
8 knowledge or willful blindness. These affirmative acts include, without limitation,
9 advertising, marketing, promoting, offering for sale and/or selling the above-referenced
10 devices, with software containing infringing functionality, to consumers, customers,
11 manufacturers, distributors, resellers, partners, and/or end users, and providing
12 instructions, user manuals, advertising, and/or marketing materials that facilitate, direct, or
13 encourage the direct infringement of the '564 Patent by others with knowledge thereof.

14 82. Defendants have contributed to the infringement of, and continue to contribute
15 to the infringement of the '564 Patent under 35 U.S.C. § 271(c), either literally and/or under
16 the doctrine of equivalents, by selling, offering to sell, and/or importing within or into the
17 United States the Accused Devices, including those that implement secure authenticated
18 distance measurement to stream content. The hardware and software used to perform this
19 distance measurement constitute a material part of the invention of the '564 Patent, are
20 known by Defendants to be especially made or adapted for use in infringing the patent, and
21 are not a staple article or commodity of commerce suitable for substantial non-infringing
22 use.

23 83. The claims of the '564 Patent, when viewed as a whole from the perspective
24 of a person of ordinary skill in the art, including as an ordered combination, address
25 difficult technical challenges in the field of authenticating receiving devices and securely
26 measuring distance between transmitting and receiving devices for the purposes of securely
27 distributing content between transmitting and receiving devices. A person of ordinary skill
28 in the art would recognize that the claims of the '564 Patent were not well known, routine,

1 or conventional at the time of the invention, almost eighteen years ago, and represent
2 specific improvements over the prior art and prior existing systems and methods.

3 84. As would be recognized by a person of ordinary skill in the art, at the time of
4 the inventions claimed in the '564 Patent were conceived, there were no systems that
5 authenticated receiving devices, established secure channels between transmitting and
6 receiving devices, securely measured distance between the transmitting and receiving
7 devices, and allowed content access by receiving devices if the measured distance was
8 within a predetermined threshold. For example, digital content distribution was at nascent
9 stages and the prevailing methods of storing such content was via CDs and DVDs. *See Ex.*
10 *C*, col. 1, ll. 44-64. While secure methods of transport had been developed (*id.* col. 2, ll.
11 13-17), there was no consideration in such methods for authentication of content ownership
12 and measuring the distance over which the content owner wished to transmit the content.
13 *Id.* col. 2, ll. 28-30. As a use case example, there was no known way for a neighbor to visit
14 his neighbor and view the content he owns on his neighbor's television. *Id.* col. 2, ll. 22-
15 27.

16 85. As such, as of the priority date of the '564 Patent, there was no ready way for
17 content owners to be able to authenticate a receiving device, establish a secure channel
18 between their transmitting and receiving devices, and securely measure distance between
19 the transmitting and receiving devices such that their content can be accessed by the
20 receiving devices if within an allowed distance. *Id.* col. 2, ll. 28-30, 40-42.

21 86. A person of ordinary skill in the art would recognize that the claims of the
22 '564 Patent are directed to specific improvements in the secure transmission of digital
23 content. Among other things, the claimed inventions improve functionality of content
24 storage and delivery devices by allowing more flexible content access capabilities while
25 maintaining the security and integrity of the underlying content. The claimed inventions
26 provide systems for authenticating receiver devices and establishing a secure channel
27 between transmitting and receiver devices. The claimed inventions provide systems for
28 securely measuring the distance between transmitting and receiving devices by using

1 transmission times and shared secret keys. The claimed systems provide systems that allow
2 access of content over a secure channel if the securely measured distance is within a
3 predetermined distance.

4 87. To achieve such inventions, the inventor did more than simply apply current
5 technology to an existing problem. The invention, as embodied in at least claim 14, was a
6 significant advancement in digital content transmission and these noted improvements over
7 the prior art represent meaningful limitations and/or inventive concepts based upon the
8 state of the art at the time of these inventions. Further, including in view of these specific
9 improvements, the inventions claimed in the '564 Patent, when viewed as a whole, are not
10 routine, well-understood, conventional, generic, existing, commonly used, well-known,
11 previously known, or typical almost eighteen years ago, including because until the
12 inventions of the claims of the '564 Patent, the claimed inventions were not existing or
13 even considered in the field.

14 88. The '564 Patent, and claim 14 in particular, comprises a non-conventional and
15 non-generic arrangement of components that is a technical improvement to the storage and
16 secure transmission of digital content to authenticated devices over a limited distance,
17 including those improvements noted above.

18 89. The inventions claimed in the '564 Patent are necessarily rooted in computer
19 technology, *i.e.*, the storage and secure transmission of digital content to authenticated
20 devices over a limited distance, and comprise technological improvements over prior
21 technologies in order to provide new functionality and overcome inefficiencies, including
22 those noted above. The claimed solutions amount to an inventive concept for particular
23 problems and inefficiencies noted above.

24 90. By virtue of the correspondence and communications from Philips, at least as
25 early as January 10, 2017 and continuing thereafter through the present (including the
26 original complaint in this action), detailing Defendants' infringement of the '939 Patent
27 and offering to discuss licensing of the '939 Patent and other patents, Defendants knew or
28

1 should have known of the '564 Patent, a continuation patent that claims priority to the '939
2 Patent, upon its issuance, consistent with industry custom and practice.

3 91. Philips is entitled to recover damages under 35 U.S.C. § 284 to adequately
4 compensate for Defendants' infringement. Defendants' ongoing infringement is willful
5 and deliberate, as Defendants became or should have become aware of the infringing nature
6 of the Accused Devices upon the issuance of the '564 Patent and continuing thereafter
7 through the present including by correspondence and communications from Philips.

8 92. Philips has been and continues to be damaged and irreparably harmed by
9 Defendants' infringement of the '564 Patent. This irreparable harm will continue unless
10 this Court enjoins Defendants.

11 93. Defendants' conduct in infringing the '564 Patent renders this case
12 exceptional within the meaning of 35 U.S.C. § 285.

13 **DAMAGES**

14 94. TCL has refused to compensate Philips for TCL's infringement of Philips's
15 patents. Philips is entitled to monetary damages adequate to compensate Philips for TCL's
16 infringement in an amount not less than a reasonable royalty for the use made of the
17 patented inventions by TCL. The precise amount of damages will be determined through
18 discovery in this litigation and proven at trial.

19 95. Relative to products covered by the claims, Philips and licensees of the
20 Asserted Patents have complied with 35 U.S.C. § 287, and relative to licensees, Philips has
21 taken reasonable steps to ensure compliance with marking. Accordingly, although TCL
22 was notified of the Asserted Patents and its infringement at least as early as February 2012
23 and continuing thereafter through the present, the period of recoverable damages is not
24 limited by such actual notice and Philips is entitled to monetary damages beginning six
25 years prior to commencement of this action.

PRAYER FOR RELIEF

1
2 WHEREFORE, Plaintiffs Koninklijke Philips N.V. and Philips North America LLC
3 respectfully ask this Court for an order granting the following relief:

4 (a) a judgment that Defendants have directly and jointly infringed, indirectly
5 infringed, induced others to infringe and/or contributed to others' infringement, either
6 literally and/or under the doctrine of equivalents, one or more claims of each of the
7 Asserted Patents;

8 (b) a permanent injunction under 35 U.S.C. § 283, enjoining Defendants and their
9 officers, directors, agents, servants, affiliates, employees, subsidiaries, parents, licensees,
10 assigns, and customers, and all others acting in concert or participation with them, from
11 further acts of direct and joint infringement, inducing infringement, and/or contributing to
12 infringement of the Asserted Patents;

13 (c) a judgment against Defendants for money damages sustained as a result of
14 Defendants' infringement of the Asserted Patents in an amount to be determined at trial
15 provided under 35 U.S.C. § 284, including enhanced damages due to, for example,
16 Defendants' willful infringement of the Asserted Patents and its intentional and willful
17 blindness;

18 (d) an accounting for infringing sales not presented at trial and an award by the Court
19 of additional damages for any such infringing sales;

20 (e) an award of pre-judgment and post-judgment interest on the damages caused by
21 Defendants' infringing activities and other conduct complained of herein;

22 (f) a finding that this case is an exceptional case under 35 U.S.C. § 285;

23 (g) an award of reasonable attorneys' fees and costs incurred in connection with this
24 action;

25 (h) a compulsory future royalty;

26 (i) any and all other relief as the Court finds just, equitable, and proper under the
27 circumstances.
28

DEMAND FOR JURY TRIAL

Plaintiff hereby respectfully requests trial by jury under Rule 38 of the Federal Rules of Civil Procedure on all issues in this action so triable.

Dated: July 10, 2020

Respectfully submitted,

/s/ Jean-Paul Ciardullo

Jean Paul Ciardullo, CA Bar No. 284170
FOLEY & LARDNER LLP
555 South Flower Street
Suite 3300
Los Angeles, CA 90071-2411
Phone: (213) 972-4500
Fax: (213) 486-0065
jciardullo@foley.com

Eley O. Thompson (*pro hac vice*)
FOLEY & LARDNER LLP
321 N. Clark Street
Suite 2800
Chicago, IL 60654-5313
Phone: (312) 832-4359
Fax: (312) 832-4700
ethompson@foley.com

Kevin J. Malaney (*pro hac vice*)
FOLEY & LARDNER LLP
777 E. Wisconsin Avenue
Milwaukee, WI 53202
Phone: (414) 271-2400
Fax: (414) 297-4900
kmalaney@foley.com

*Counsel for Plaintiffs
Koninklijke Philips N.V. and
Philips North America LLC*