

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

TQ DELTA, LLC,	)	
	)	
Plaintiff,	)	Civil Action No. 15-cv-613-RGA
	)	
v.	)	
	)	<b>JURY TRIAL DEMANDED</b>
DIRECTV, DIRECTV, LLC,	)	
DIRECTV, INC., THE DIRECTV	)	
GROUP, INC., and DIRECTV	)	
HOLDINGS, LLC,	)	
Defendants.		

**FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff, TQ Delta, LLC, for its First Amended Complaint against Defendants DirecTV, DirecTV, LLC, DirecTV, Inc., The DirecTV Group, Inc., and DirecTV Holdings, LLC (collectively, “DirecTV” or “Defendants”), alleges as follows:

**THE PARTIES**

1. TQ Delta, LLC (“TQ Delta” or “Plaintiff”) is a limited liability company organized and existing under the laws of the State of Delaware and having a principal place of business at 805 Las Cimas Parkway, Suite 240, Austin, Texas 78746.

2. Upon information and belief, Defendant DirecTV is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 2230 East Imperial Highway, El Segundo, California 90245. DirecTV has appointed Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808 as its agent for service of process.

3. On information and belief, Defendant DirecTV, LLC is a company organized and existing under the laws of the State of California, with its principal place of business at 2230 East

Imperial Highway, El Segundo, California 90245. DirecTV, LLC, has appointed Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808 as its agent for service of process.

4. On information and belief, Defendant DirecTV, Inc. is a corporation organized and existing under the laws of the State of California, with its principal place of business at 2230 East Imperial Highway, El Segundo, California 90245. DirecTV, Inc. has appointed Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808 as its agent for service of process.

5. Upon information and belief, Defendant The DirecTV Group, Inc. is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 2230 East Imperial Highway, El Segundo, California 90245. The DirecTV Group, Inc. has appointed Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808 as its agent for service of process.

6. Upon information and belief, Defendant DirecTV Holdings, LLC is a limited liability company organized and existing under the laws of the State of Delaware, with its principal place of business at 2230 East Imperial Highway, El Segundo, California 90245. DirecTV Holdings LLC has appointed Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808 as its agent for service of process.

#### **JURISDICTION AND VENUE**

7. This action is for patent infringement under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*

8. This Court has subject matter jurisdiction over this dispute pursuant to 28 U.S.C. §§ 1331 and 1338(a).

9. This Court has personal jurisdiction over Defendants at least because the Defendants have transacted business in the State of Delaware and Defendants have committed and continue to commit acts of patent infringement in Delaware.

10. Venue is proper in this district pursuant to 28 U.S.C. §§ 1391 and 1400(b) at least because Defendants DirecTV, The DirecTV Group, and DirecTV Holdings, LLC are all incorporated in Delaware, and because each of the Defendants transacts substantial business in the State of Delaware, directly or through intermediaries, including: (i) at least a portion of the infringements alleged herein, and (ii) regularly doing or soliciting business in Delaware, engaging in other persistent courses of conduct, maintaining continuous and systematic contacts in Delaware, purposefully availing itself of the privileges of doing business in Delaware, and/or deriving substantial revenue from goods and services provided to individuals in Delaware.

### **BACKGROUND**

11. TQ Delta is the owner by assignment of a portfolio of patents relating to high-speed communications technologies.

12. The subject matter of TQ Delta's patents was originally developed for use in digital subscriber line ("DSL") communications standards. TQ Delta's inventions, however, have been adopted by other standard-setting organizations without notice or consideration to TQ Delta. For example, the Multimedia over Coax Alliance has more recently developed a communication standard called "MoCA" that is used for high-speed communications over coaxial cable (e.g., existing cable wiring within the home of a cable TV subscriber).

13. Because neither TQ Delta nor any prior owner of the patents asserted in Counts I-VIII participated in the Multimedia over Coax Alliance, TQ Delta is not subject to any intellectual property rights policies of the Multimedia over Coax Alliance.

14. Upon information and belief, Defendant DirecTV is a member of the Multimedia Over Coax Alliance at the level of a Promoter (Board of Directors), and it or one of its predecessors or affiliates has been a member since 2008.

15. MoCA is used by pay TV operators, such as cable, satellite, and telco/IPTV operators, to deliver services to, and thereby generate substantial revenue from, their customers/subscribers. As described by the Multimedia over Coax Alliance:

MoCA technology is the worldwide standard for high performance and high reliability in the connected home, and has been adopted by cable, telco/IPTV and satellite operators worldwide. MoCA technology is also used to extend Wi-Fi® connectivity within the home.

16. The Multimedia over Coax Alliance has adopted industry standards relating to various MoCA technologies, including MoCA 1.0, MoCA 1.1, and MoCA 2.0 (collectively, “MoCA Standards”).

17. Upon information and belief, as a promoter, Defendant DirecTV was involved in the development of the MoCA 1.0, MoCA 1.1, and MoCA 2.0 Standards.

18. Defendants make, use, sell, offer for sale, and/or import systems, articles, methods, and services that operate in accordance with one or more of the MoCA Standards, such as, for example, DirecTV’s digital satellite TV services, DirecTV’s Whole-Home DVR service (including without limitation the Genie Whole-Home HD DVR service and the DirecTV Plus HD DVR service), DirecTV’s Internet service, and set-top boxes, gateways, routers, modems, adapters, and networks (such systems, articles, methods, and services, collectively the “MoCA Products”). The Defendants also direct, control, or put into use MoCA Products.

19. The Defendants provide their MoCA Products to end-users and customers (collectively, “Customers”).

20. Upon information and belief, Defendants know that their MoCA Products operate in accordance with one or more of the MoCA Standards and that their MoCA Products will be deployed and used in or to create a MoCA network to provide MoCA services to their Customers.

21. The Defendants also provide services, specifications, and instructions for their MoCA Products, install (or support the installation of) and operate (or support or control the operation of) systems and networks using their MoCA Products, and ensure that their MoCA Products operate as intended (e.g., operate in accordance with one or more of the MoCA Standards).

22. The Defendants also make available, including on one or more of their websites, data sheets and other information that indicate that their MoCA Products operate in accordance with, and/or comply with, one or more of the MoCA Standards.

23. The Defendants use and deploy their MoCA Products to, for example, deliver services, in exchange for which the Defendants receive compensation, e.g., in the form of purchases or leases of MoCA Products, or monthly subscription fees from Customers.

24. The Defendants also make, own, and/or control the systems in which their MoCA Products are employed. For example, Defendants make systems employing MoCA Products by, for example, directing an agent or Customer to install or complete the system. As another example, when MoCA Products are installed into the home of a Customer, the Defendants operate, control, and/or use the system employing MoCA Products to deliver services, in exchange for which the Defendants receive compensation, e.g., in the form of purchases or leases of MoCA Products, or monthly subscription fees from Customers.

25. The Defendants also own and/or control the MoCA Products that practice one or more of the MoCA Standards. For example, when the MoCA Products are deployed in the home of a Customer, the Defendants control the configuration and/or use of the MoCA Products, and charge the Customer for services that are delivered using one or more of the MoCA Standards.

### **DEFENDANTS' KNOWLEDGE OF THE ASSERTED PATENTS**

#### **Knowledge of the Asserted Patents Gained From the Complaint or the First Amended Complaint**

26. At least as of the time of service of the original Complaint or this First Amended Complaint, Defendants had actual knowledge of the patents asserted in Counts I-VIII of this First Amended Complaint. A reasonable opportunity for further investigation or discovery will likely show that at least shortly thereafter, the Defendants also knew that the normal, intended use of their MoCA Products that operate in accordance with the MoCA Standards infringe, contributorily infringe, and/or would induce actual infringement of the patents asserted in Counts I-VIII of this First Amended Complaint.

#### **Knowledge of the Asserted Patents Prior to Filing of the Complaint Gained from Acts Relating to Plaintiff's Attempts to Negotiate a License to Plaintiff's Patents In Suit**

27. A reasonable opportunity for further investigation or discovery will likely show that on or about December 22, 2014, Defendant DirecTV, LLC gained actual knowledge of the patents asserted in at least Counts I-II and IV-VII of the Complaint and the First Amended Complaint by virtue of actions taken in response to efforts by TQ Delta to license those patents.

28. As referenced below, TQ Delta attempted to negotiate a license under TQ Delta's MoCA patent portfolio and advised Defendant DirecTV, LLC that a license under one or more of its patents would be highly desirable to practice or otherwise comply with certain MoCA standards.

29. On December 19, 2014, TQ Delta sent a first letter to Defendant DirecTV, LLC in care of Mr. Larry Hunter (Defendant DirecTV, LLC's Executive Vice President & General Counsel), which included an overview of TQ Delta's MoCA patent portfolio and an invitation to open licensing discussions upon execution of a proposed litigation standstill agreement.

30. On February 28, 2015, DirecTV, LLC responded to TQ Delta's efforts to engage in licensing discussions.

31. Further communications ensued, although Defendant DirecTV, LLC was unwilling to agree to the confidentiality and standstill agreement proposed by TQ Delta. Though DirecTV, LLC did ultimately agree to correspond, it did not meaningfully engage in licensing discussions.

32. TQ Delta provided Defendant DirecTV, LLC with detailed claim charts evidencing infringement of the patents that are the subject of Counts I-IV and VI-VII by, among other things, DirecTV's Whole-Home DVR service (including without limitation the Genie Whole-Home HD DVR service). DirecTV accessed at least one of these charts at least as of July 8, 2015.

33. In view of the allegations set forth herein, a reasonable opportunity for further investigation or discovery will likely show that, prior to the filing of the Complaint or the First Amended Complaint, Defendants had (1) actual knowledge of the patents asserted in Counts I-VIII of this First Amended Complaint at least by investigating the patents owned by TQ Delta relating to the MoCA Standards and (2) actual knowledge that implementations and practice of MoCA Standards by their MoCA Products would infringe, contributorily infringe, and/or induce actual infringement of patents owned by TQ Delta, including the patents asserted in Counts I-VIII of this First Amended Complaint.

**In the Alternative, Defendants Were Willfully Blind to the Existence of the Asserted Patents and Infringement Thereof**

34. In the alternative and to the extent Defendants did not gain actual knowledge in the manners described above, a reasonable opportunity for further investigation or discovery will likely show that, prior to Defendants' infringing conduct alleged herein, Defendants were willfully blind to the existence of the patents asserted in Counts I-VIII of this First Amended Complaint, and their infringement of those patents, because:

- (a) As noted above, Defendant DirecTV, LLC was informed by TQ Delta that its MoCA products infringe certain of the TQ Delta patents in suit, as well as other patents in the same patent families;
- (b) By virtue of the allegations set forth herein, Defendants subjectively believed that there was a high probability that TQ Delta owned patents that Defendants and their customers would necessarily infringe by implementing and practicing the MoCA Standards; and
- (c) Notwithstanding the unanswered inquiries from TQ Delta regarding its ownership of standard-essential MoCA patents, and other facts obtained from discovery or investigation showing that the practice or implementation of the subject MoCA Standards involve the use of claimed intellectual property rights of patents owned by TQ Delta, Defendants took deliberate actions to purposefully avoid confirming the high probability that TQ Delta owns patents relating to MoCA technology, including the patents identified in Counts I-VIII of this First Amended Complaint, and that Defendants' MoCA Products infringe, contributorily infringe, and/or induce actual infringement of those patents. These acts include a deliberate decision not to (1) seek a license from TQ Delta, (2) review the U.S. Patent and



Trademark Office patent database or other suitable patent database, and/or (3) otherwise conduct an investigation to identify and review TQ Delta's patents, including those identified in Counts I-VIII of this First Amended Complaint.

35. In the alternative and to the extent Defendants did not gain actual knowledge in the manners described above, a reasonable opportunity for further investigation or discovery will likely show that, since the time Defendant DirecTV, LLC received TQ Delta's December 19, 2014, letter on December 22, 2014, Defendants were willfully blind to the existence of the patents asserted in Counts I-VIII of this First Amended Complaint, and their infringement of those patents, because:

- (a) Defendant DirecTV, LLC was notified by TQ Delta that TQ Delta's patents are "highly relevant to current and future MoCA products and services . . ." and that "[i]n light of DirecTV's MoCA offerings, TQD believes DirecTV would benefit from a license to TQD's portfolio"; and
- (b) Notwithstanding TQ Delta's letter, further discovery and investigation will likely show that Defendants took deliberate actions to purposefully avoid confirming the high probability that their MoCA Products that operate in accordance with the MoCA Standards infringe, contributorily infringe, and/or induce actual infringement of TQ Delta's patents, including the patents identified in Counts I-VIII of this First Amended Complaint. These acts include without limitation an affirmative decision to delay and/or avoid substantive negotiations with TQ Delta.

**DEFENDANTS' INFRINGEMENT OF THE ASSERTED PATENTS**

**Phase Scrambling In Multicarrier Communication Systems Patents**

**COUNT I – INFRINGEMENT OF U.S. PATENT NO. 6,961,369**

36. TQ Delta hereby incorporates by reference paragraphs 1 through 35 of this Complaint.

37. On November 1, 2005, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 6,961,369 (“the ‘369 patent”), entitled “System and Method for Scrambling the Phase of the Carriers in a Multicarrier Communications System.” TQ Delta is the owner and assignee of the ‘369 patent. A copy of the ‘369 patent is attached as Exhibit 1.

38. Defendants, in violation of 35 U.S.C. § 271(a), have been and are directly infringing the ‘369 patent, including without limitation individually, jointly, and/or by attribution, by making, using, selling, offering to sell, and/or importing, without license or authority, MoCA Products and/or systems or methods that incorporate or employ MoCA Products that operate in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards.

39. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the ‘369 patent (at least as of the service of this Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(b), have knowingly induced, and are inducing, the direct infringement of one or more claims of the ‘369 patent by

- (1) (a) selling, leasing or otherwise providing to Customers,
- (b) providing Customers with support for, and/or
- (c) providing Customers with instructions for use of

Defendants’ MoCA Products and/or systems or methods that incorporate or employ MoCA Products,

- (2) with the intent to encourage those Customers to directly infringe the ‘369 patent by using Defendants’ MoCA Products and/or systems or methods that incorporate

or employ MoCA Products and practicing methods in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards,

whereby Defendants' Customers have directly infringed the '369 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards.

40. Upon information and belief, Defendants know that their Customers infringe the '369 patent, including without limitation individually, jointly, and/or by attribution, by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards. *See, e.g.,* <http://www.directv.com/technology/wholehome> (accessed July 9, 2015); <http://mocablog.net/directv-2/> (accessed July 9, 2015); [http://support-us.samsung.com/cyber/popup/iframe/pop\\_troubleshooting\\_fr.jsp?modelName=UN46D6400UF&from\\_osc=&idx=394899&](http://support-us.samsung.com/cyber/popup/iframe/pop_troubleshooting_fr.jsp?modelName=UN46D6400UF&from_osc=&idx=394899&) (accessed July 9, 2015); [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/3979/~/\\_directv-hr34%2Fhr44-receiver-%28genie%29](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/3979/~/_directv-hr34%2Fhr44-receiver-%28genie%29) (accessed July 9, 2015) (genie User Guide).

41. Defendants have provided and continue to provide product literature and information specifying that certain of their MoCA Products and/or systems or methods that incorporate or employ MoCA Products that operate in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards, thereby indicating that Defendants specifically intended for their Customers

to use the products and/or systems or methods in a way that would necessarily infringe standard-essential patent claims of the '369 patent.

42. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the '369 patent (at least as of the service of this Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(c), have contributorily infringed, and are contributorily infringing, the '369 patent, by selling and/or providing MoCA Products and/or systems that incorporate or employ MoCA Products to their Customers in the United States for use in practicing the patented methods, knowing that their MoCA Products and/or systems that incorporate or employ MoCA Products are material to practicing the claimed inventions, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are especially made or especially adapted for use in an infringement of the '369 patent. Such discovery or investigation will likely show that Defendants sold, provided, or facilitated the provision of their MoCA Products and/or systems that incorporate or employ MoCA Products to Customers knowing that the products and/or systems directly infringe the '369 patent when used for their normal and intended purpose, including by operating in accordance with one or more of MoCA Standards 1.0, 1.1, and/or 2.0. *See, e.g.*, <http://www.directv.com/technology/wholehome> (accessed July 9, 2015); <http://mocablog.net/directv-2/> (accessed July 9, 2015); [http://support-us.samsung.com/cyber/popup/iframe/pop\\_troubleshooting\\_fr.jsp?modelName=UN46D6400UF&from\\_osc=&idx=394899&](http://support-us.samsung.com/cyber/popup/iframe/pop_troubleshooting_fr.jsp?modelName=UN46D6400UF&from_osc=&idx=394899&) (accessed July 9, 2015); [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/3979/~directv-hr34%2Fhr44-receiver-%28genie%29](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/3979/~directv-hr34%2Fhr44-receiver-%28genie%29) (accessed July 9, 2015) (genie User Guide). The products and/or systems are made for the specific purpose of

operating according to the MoCA Standards and have no substantial non-infringing use. Defendants' Customers have directly infringed the '369 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards.

43. As a result of Defendants' infringement of the '369 patent, TQ Delta has suffered damages and is entitled to monetary relief to compensate for the infringement, but in no event less than a reasonable royalty for the use of the invention by Defendants, together with interest and costs as fixed by the Court.

**COUNT II – INFRINGEMENT OF U.S. PATENT NO. 8,718,158**

44. TQ Delta hereby incorporates by reference paragraphs 1 through 35 of this Complaint.

45. On May 6, 2014, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 8,718,158 ("the '158 patent"), entitled "System and Method for Scrambling the Phase of the Carriers in a Multicarrier Communications System." TQ Delta is the owner and assignee of the '158 patent. A copy of the '158 patent is attached as Exhibit 2.

46. Defendants, in violation of 35 U.S.C. § 271(a), have been and are directly infringing the '158 patent, including without limitation individually, jointly, and/or by attribution, by making, using, selling, offering to sell, and/or importing, without license or authority, MoCA Products and/or systems or methods that incorporate or employ MoCA Products and practicing methods that operate in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards.

47. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the '158 patent (at least as of the service of this Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(b), have knowingly induced, and are inducing, the direct infringement of one or more claims of the '158 patent by

- (1) (a) selling, leasing or otherwise providing to Customers,
- (b) providing Customers with support for, and/or
- (c) providing Customers with instructions for use of

Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products,

(2) with the intent to encourage those Customers to directly infringe the '158 patent by using Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products and practicing methods in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards,

whereby Defendants' Customers have directly infringed the '158 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards.

48. Upon information and belief, Defendants know that their Customers infringe the '158 patent, including without limitation individually, jointly, and/or by attribution, by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance

with the MoCA 1.0, 1.1, and/or 2.0 standards. *See, e.g.,* <http://www.directv.com/technology/wholehome> (accessed July 9, 2015); <http://mocablog.net/directv-2/> (accessed July 9, 2015); [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~/\\_directv-receiver-manuals](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~/_directv-receiver-manuals) (accessed July 9, 2015).

49. Defendants have provided and continue to provide product literature and information specifying that certain of their MoCA Products and/or systems or methods that incorporate or employ MoCA Products operate in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards, thereby indicating that Defendants specifically intended for their Customers to use the products and/or systems or methods in a way that would necessarily infringe standard-essential patent claims of the '158 patent.

50. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the '158 patent (at least as of the service of this Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(c), have contributorily infringed, and are contributorily infringing, the '158 patent, by selling and/or providing MoCA Products and/or systems that incorporate or employ MoCA Products to their Customers in the United States for use in practicing the patented methods, knowing that their MoCA Products and/or systems that incorporate or employ MoCA Products are material to practicing the claimed inventions, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are especially made or especially adapted for use in an infringement of the '158 patent. Such discovery or investigation will likely show that Defendants sold, provided, or facilitated the

provision of their MoCA Products and/or systems that incorporate or employ MoCA Products to Customers knowing that the products and/or systems directly infringe the '158 patent when used for their normal and intended purpose, including by operating in accordance with one or more of MoCA Standards 1.0, 1.1, and/or 2.0. *See, e.g.*, <http://www.directv.com/technology/wholehome> (accessed July 9, 2015); <http://mocablog.net/directv-2/> (accessed July 9, 2015); [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~~/directv-receiver-manuals](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~~/directv-receiver-manuals) (accessed July 9, 2015). The products and/or systems are made for the specific purpose of operating according to the MoCA Standards and have no substantial non-infringing use. Defendants' Customers have directly infringed the '158 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards.

51. As a result of Defendants' infringement of the '158 patent, TQ Delta has suffered damages and is entitled to monetary relief to compensate for the infringement, but in no event less than a reasonable royalty for the use of the invention by Defendants, together with interest and costs as fixed by the Court.

### **COUNT III – INFRINGEMENT OF U.S. PATENT NO. 9,014,243**

52. TQ Delta hereby incorporates by reference paragraphs 1 through 35 of this Complaint.

53. On April 21, 2015, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 9,014,243 ("the '243 patent"), entitled "System and Method for



Scrambling Using a Bit Scrambler and a Phase Scrambler.” TQ Delta is the owner and assignee of the ‘243 patent. A copy of the ‘243 patent is attached as Exhibit 3.

54. Defendants, in violation of 35 U.S.C. § 271(a), have been and are directly infringing the ‘243 patent, including without limitation individually, jointly, and/or by attribution, by making, using, selling, offering to sell, and/or importing, without license or authority, MoCA Products and/or systems or methods that incorporate or employ MoCA Products and practicing methods that operate in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards.

55. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the ‘243 patent (at least as of the service of this Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(b), have knowingly induced, and are inducing, the direct infringement of one or more claims of the ‘243 patent by

- (1) (a) selling, leasing or otherwise providing to Customers,
- (b) providing Customers with support for, and/or
- (c) providing Customers with instructions for use of

Defendants’ MoCA Products and/or systems or methods that incorporate or employ MoCA Products,

(2) with the intent to encourage those Customers to directly infringe the ‘243 patent by using Defendants’ MoCA Products and/or systems or methods that incorporate or employ MoCA Products and practicing methods in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards,

whereby Defendants' Customers have directly infringed the '243 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards.

56. Upon information and belief, Defendants know that their Customers infringe the '243 patent, including without limitation individually, jointly, and/or by attribution, by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards. *See, e.g.,* [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~~/directv-receiver-manuals](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~~/directv-receiver-manuals) (accessed July 9, 2015).

57. Defendants have provided and continue to provide product literature and information specifying that certain of their MoCA Products and/or systems or methods that incorporate or employ MoCA Products operate in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards, thereby indicating that Defendants specifically intended for their Customers to use the products and/or systems or methods in a way that would necessarily infringe standard-essential patent claims of the '243 patent.

58. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the '243 patent (at least as of the service of this Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(c), have contributorily infringed, and are

contributorily infringing, the ‘243 patent, by selling and/or providing MoCA Products and/or systems that incorporate or employ MoCA Products to their Customers in the United States for use in practicing the patented methods, knowing that their MoCA Products and/or systems that incorporate or employ MoCA Products are material to practicing the claimed inventions, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are especially made or especially adapted for use in an infringement of the ‘243 patent. Such discovery or investigation will likely show that Defendants sold, provided, or facilitated the provision of their MoCA Products and/or systems that incorporate or employ MoCA Products to Customers knowing that the products and/or systems directly infringe the ‘243 patent when used for their normal and intended purpose, including by operating in accordance with one or more of MoCA Standards 1.0, 1.1, and/or 2.0. *See, e.g.,* [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~~/directv-receiver-manuals](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~~/directv-receiver-manuals) (accessed July 9, 2015). The products and/or systems are made for the specific purpose of operating according to the MoCA Standards and have no substantial non-infringing use. Defendants’ Customers have directly infringed the ‘243 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants’ MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with the MoCA 1.0, 1.1, and/or 2.0 standards.

59. As a result of Defendants’ infringement of the ‘243 patent, TQ Delta has suffered damages and is entitled to monetary relief to compensate for the infringement, but in no event less than a reasonable royalty for the use of the invention by Defendants, together with interest and costs as fixed by the Court.

**Diagnostic Mode and Test Parameter Patents**

**COUNT IV – INFRINGEMENT OF U.S. PATENT NO. 7,835,430**

60. TQ Delta hereby incorporates by reference paragraphs 1 through 35 of this Complaint.

61. On November 16, 2010, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 7,835,430 (“the ‘430 patent”), entitled “Multicarrier Modulation Messaging for Frequency Domain Received Idle Channel Noise Information.” TQ Delta is the owner and assignee of the ‘430 patent. A copy of the ‘430 patent is attached as Exhibit 4.

62. Defendants, in violation of 35 U.S.C. § 271(a), have been and are directly infringing the ‘430 patent, including without limitation individually, jointly, and/or by attribution, by making, using, selling, offering to sell, and/or importing, without license or authority, MoCA Products and/or systems or methods that incorporate or employ MoCA Products that operate in accordance with at least the MoCA 2.0 Standard.

63. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the ‘430 patent (at least as of the service of this Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(b), have knowingly induced, and are inducing, the direct infringement of one or more claims of the ‘430 patent by

- (1) (a) selling, leasing or otherwise providing to Customers,
- (b) providing Customers with support for, and/or
- (c) providing Customers with instructions for use of

Defendants’ MoCA Products and/or systems or methods that incorporate or employ MoCA Products,

(2) with the intent to encourage those Customers to directly infringe the ‘430 patent by using Defendants’ MoCA Products and/or systems or methods that incorporate or employ MoCA Products and practicing methods in accordance with at least the MoCA 2.0 Standard,

whereby Defendants’ Customers have directly infringed the ‘430 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants’ MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with at least the MoCA 2.0 Standard.

64. Upon information and belief, Defendants know that their Customers infringe the ‘430 patent, including without limitation individually, jointly, and/or by attribution, by the normal and intended use of Defendants’ MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with at least the MoCA 2.0 Standard. *See, e.g.,* <http://www.directv.com/technology/wholehome> (accessed July 9, 2015); <http://mocablog.net/directv-2/> (accessed July 9, 2015); [http://support-us.samsung.com/cyber/popup/iframe/pop\\_troubleshooting\\_fr.jsp?model\\_name=UN46D6400UF&from\\_osc=&idx=394899&](http://support-us.samsung.com/cyber/popup/iframe/pop_troubleshooting_fr.jsp?model_name=UN46D6400UF&from_osc=&idx=394899&) (accessed July 9, 2015); [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/3979/~/\\_directv-hr34%2Fhr44-receiver-%28genie%29](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/3979/~/_directv-hr34%2Fhr44-receiver-%28genie%29) (accessed July 9, 2015) (genie User Guide).

65. Defendants have provided and continue to provide product literature and information specifying that certain of their MoCA Products and/or systems or methods that incorporate or employ MoCA Products operate in accordance with at least the MoCA 2.0

Standard, thereby indicating that Defendants specifically intended for their Customers to use the products and/or systems or methods in a way that would necessarily infringe standard-essential patent claims of the '430 patent.

66. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the '430 patent (at least as of the service of this Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(c), have contributorily infringed, and are contributorily infringing, the '430 patent, by selling and/or providing MoCA Products and/or systems that incorporate or employ MoCA Products to their Customers in the United States for use in practicing the patented methods, knowing that their MoCA Products and/or systems that incorporate or employ MoCA Products are material to practicing the claimed inventions, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are especially made or especially adapted for use in an infringement of the '430 patent. Such discovery or investigation will likely show that Defendants sold, provided, or facilitated the provision of their MoCA Products and/or systems that incorporate or employ MoCA Products to Customers knowing that the products and/or systems directly infringe the '430 patent when used for their normal and intended purpose, including by operating in accordance with at least the MoCA 2.0 Standard. *See, e.g.*, <http://www.directv.com/technology/wholehome> (accessed July 9, 2015); <http://mocablog.net/directv-2/> (accessed July 9, 2015); [http://support-us.samsung.com/cyber/popup/iframe/pop\\_troubleshooting\\_fr.jsp?modelName=UN46D6400UF&from\\_osc=&idx=394899&](http://support-us.samsung.com/cyber/popup/iframe/pop_troubleshooting_fr.jsp?modelName=UN46D6400UF&from_osc=&idx=394899&) (accessed July 9, 2015); [http://www.directv.com/learn/pdf/SystemManuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/3979/~/\\_directv-hr34%2Fhr44-receiver-%28genie%29](http://www.directv.com/learn/pdf/SystemManuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/3979/~/_directv-hr34%2Fhr44-receiver-%28genie%29) (accessed July 9,

2015) (genie User Guide). The products and/or systems are made for the specific purpose of operating according to the MoCA 2.0 Standard and have no substantial non-infringing use. Defendants' Customers have directly infringed the '430 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with at least the MoCA 2.0 Standard.

67. As a result of Defendants' infringement of the '430 patent, TQ Delta has suffered damages and is entitled to monetary relief to compensate for the infringement, but in no event less than a reasonable royalty for the use of the invention by Defendants, together with interest and costs as fixed by the Court.

**COUNT V – INFRINGEMENT OF U.S. PATENT NO. 8,238,412**

68. TQ Delta hereby incorporates by reference paragraphs 1 through 35 of this Complaint.

69. On August 7, 2012, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 8,238,412 ("the '412 patent"), entitled "Multicarrier Modulation Messaging for Power Level per Subchannel Information." TQ Delta is the owner and assignee of the '412 patent. A copy of the '412 patent is attached as Exhibit 5.

70. Defendants, in violation of 35 U.S.C. § 271(a), have been and are directly infringing the '412 patent, including without limitation individually, jointly, and/or by attribution, by making, using, selling, offering to sell, and/or importing, without license or authority, MoCA Products and/or systems or methods that incorporate or employ MoCA Products that operate in accordance with at least the MoCA 2.0 Standard.

71. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the '412 patent (at least as of the service of this Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(b), have knowingly induced, and are inducing, the direct infringement of one or more claims of the '412 patent by

- (1) (a) selling, leasing or otherwise providing to Customers,
- (b) providing Customers with support for, and/or
- (c) providing Customers with instructions for use of

Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products,

(2) with the intent to encourage those Customers to directly infringe the '412 patent by using Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products and practicing methods in accordance with at least the MoCA 2.0 Standard,

whereby Defendants' Customers have directly infringed the '412 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with at least the MoCA 2.0 Standard.

72. Upon information and belief, Defendants know that their Customers infringe the '412 patent, including without limitation individually, jointly, and/or by attribution, by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance



with at least the MoCA 2.0 Standard. *See, e.g.,* [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~~/directv-receiver-manuals](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~~/directv-receiver-manuals) (accessed July 9, 2015)

73. Defendants have provided and continue to provide product literature and information specifying that certain of their MoCA Products and/or systems or methods that incorporate or employ MoCA Products operate in accordance with at least the MoCA 2.0 Standard, thereby indicating that Defendants specifically intended for their Customers to use the products and/or systems or methods in a way that would necessarily infringe standard-essential patent claims of the '412 patent.

74. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the '412 patent (at least as of the service of this Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(c), have contributorily infringed, and are contributorily infringing, the '412 patent, by selling and/or providing MoCA Products and/or systems that incorporate or employ MoCA Products to their Customers in the United States for use in practicing the patented methods, knowing that their MoCA Products and/or systems that incorporate or employ MoCA Products are material to practicing the claimed inventions, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are especially made or especially adapted for use in an infringement of the '412 patent. Such discovery or investigation will likely show that Defendants sold, provided, or facilitated the provision of their MoCA Products and/or systems that incorporate or employ MoCA Products to Customers knowing that the products and/or systems directly infringe the '412 patent when used for their normal and intended purpose, including by operating in accordance with at least the

MoCA 2.0 Standard. *See, e.g.*, [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~~/directv-receiver-manuals](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~~/directv-receiver-manuals) (accessed July 9, 2015). The products and/or systems are made for the specific purpose of operating according to the MoCA 2.0 Standard and have no substantial non-infringing use. Defendants' Customers have directly infringed the '412 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with at least the MoCA 2.0 Standard.

75. As a result of Defendants' infringement of the '412 patent, TQ Delta has suffered damages and is entitled to monetary relief to compensate for the infringement, but in no event less than a reasonable royalty for the use of the invention by Defendants, together with interest and costs as fixed by the Court.

**COUNT VI – INFRINGEMENT OF U.S. PATENT NO. 8,432,956**

76. TQ Delta hereby incorporates by reference paragraphs 1 through 35 of this Complaint.

77. On April 30, 2013, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 8,432,956 ("the '956 patent"), entitled "Multicarrier Modulation Messaging for Power Level per Subchannel Information." TQ Delta is the owner and assignee of the '956 patent. A copy of the '956 patent is attached as Exhibit 6.

78. Defendants, in violation of 35 U.S.C. § 271(a), have been and are directly infringing the '956 patent, including without limitation individually, jointly, and/or by attribution, by making, using, selling, offering to sell, and/or importing, without license or

authority, MoCA Products and/or systems or methods that incorporate or employ MoCA Products that operate in accordance with at least the MoCA 2.0 Standard.

79. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the '956 patent (at least as of the service of this Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(b), have knowingly induced, and are inducing, the direct infringement of one or more claims of the '956 patent by

- (1) (a) selling, leasing or otherwise providing to Customers,
- (b) providing Customers with support for, and/or
- (c) providing Customers with instructions for use of

Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products,

(2) with the intent to encourage those Customers to directly infringe the '956 patent by using Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products and practicing methods in accordance with at least the MoCA 2.0 Standard,

whereby Defendants' Customers have directly infringed the '956 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with at least the MoCA 2.0 Standard.

80. Upon information and belief, Defendants know that their Customers infringe the '956 patent, including without limitation individually, jointly, and/or by attribution, by the

normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with at least the MoCA 2.0 Standard. *See, e.g.*, <http://www.directv.com/technology/wholehome> (accessed July 9, 2015); <http://mocablog.net/directv-2/> (accessed July 9, 2015); [http://support-us.samsung.com/cyber/popup/iframe/pop\\_troubleshooting\\_fr.jsp?modelname=UN46D6400UF&from\\_osc=&idx=394899&](http://support-us.samsung.com/cyber/popup/iframe/pop_troubleshooting_fr.jsp?modelname=UN46D6400UF&from_osc=&idx=394899&) (accessed July 9, 2015); [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/3979/~/~directv-hr34%2Fhr44-receiver-%28genie%29](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/3979/~/~directv-hr34%2Fhr44-receiver-%28genie%29) (accessed July 9, 2015) (genie User Guide).

81. Defendants have provided and continue to provide product literature and information specifying that certain of their MoCA Products and/or systems or methods that incorporate or employ MoCA Products operate in accordance with at least the MoCA 2.0 Standard, thereby indicating that Defendants specifically intended for their Customers to use the products and/or systems or methods in a way that would necessarily infringe standard-essential patent claims of the '956 patent.

82. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the '956 patent (at least as of the service of this Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(c), have contributorily infringed, and are contributorily infringing, the '956 patent, by selling and/or providing MoCA Products and/or systems that incorporate or employ MoCA Products to their Customers in the United States for use in practicing the patented methods, knowing that their MoCA Products and/or systems that incorporate or employ MoCA Products are material to practicing the claimed inventions, are not

staple articles or commodities of commerce suitable for substantial non-infringing use, and are especially made or especially adapted for use in an infringement of the '956 patent. Such discovery or investigation will likely show that Defendants sold, provided, or facilitated the provision of their MoCA Products and/or systems that incorporate or employ MoCA Products to Customers knowing that the products and/or systems directly infringe the '956 patent when used for their normal and intended purpose, including by operating in accordance with at least the MoCA 2.0 Standard. *See, e.g.*, <http://www.directv.com/technology/wholehome> (accessed July 9, 2015); <http://mocablog.net/directv-2/> (accessed July 9, 2015); [http://support-us.samsung.com/cyber/popup/iframe/pop\\_troubleshooting\\_fr.jsp?modelname=UN46D6400UF&from\\_osc=&idx=394899&](http://support-us.samsung.com/cyber/popup/iframe/pop_troubleshooting_fr.jsp?modelname=UN46D6400UF&from_osc=&idx=394899&) (accessed July 9, 2015); [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/3979/~~/directv-hr34%2Fhr44-receiver-%28genie%29](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/3979/~~/directv-hr34%2Fhr44-receiver-%28genie%29) (accessed July 9, 2015) (genie User Guide). The products and/or systems are made for the specific purpose of operating according to at least the MoCA 2.0 Standard and have no substantial non-infringing use. Defendants' Customers have directly infringed the '956 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with at least the MoCA 2.0 Standard.

83. As a result of Defendants' infringement of the '956 patent, TQ Delta has suffered damages and is entitled to monetary relief to compensate for the infringement, but in no event less than a reasonable royalty for the use of the invention by Defendants, together with interest and costs as fixed by the Court.

**Low Power Mode Patents**

**COUNT VII – INFRINGEMENT OF U.S. PATENT NO. 8,611,404**

84. TQ Delta hereby incorporates by reference paragraphs 1 through 35 of this Complaint.

85. On December 17, 2013, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 8,611,404 (“the ‘404 patent”), entitled “Multicarrier Transmission System With Low Power Sleep Mode and Rapid-On Capability.” TQ Delta is the owner and assignee of the ‘404 patent. A copy of the ‘404 patent is attached as Exhibit 7.

86. Defendants, in violation of 35 U.S.C. § 271(a), have been and are directly infringing the ‘404 patent, including without limitation individually, jointly, and/or by attribution, by making, using, selling, offering to sell, and/or importing, without license or authority, MoCA Products and/or systems or methods that incorporate or employ MoCA Products that operate in accordance with at least the MoCA 2.0 Standard.

87. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the ‘404 patent (at least as of the service of this Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(b), have knowingly induced, and are inducing, the direct infringement of one or more claims of the ‘404 patent by

- (1) (a) selling, leasing or otherwise providing to Customers,
- (b) providing Customers with support for, and/or
- (c) providing Customers with instructions for use of

Defendants’ MoCA Products and/or systems or methods that incorporate or employ MoCA Products,

(2) with the intent to encourage those Customers to directly infringe the ‘404 patent by using Defendants’ MoCA Products and/or systems or methods that incorporate or employ MoCA Products and practicing methods in accordance with at least the MoCA 2.0 Standard,

whereby Defendants’ Customers have directly infringed the ‘404 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants’ MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with at least the MoCA 2.0 Standard.

88. Upon information and belief, Defendants know that their Customers infringe the ‘404 patent by the normal and intended use of Defendants’ MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with at least the MoCA 2.0 Standard. *See, e.g.*, <http://www.directv.com/technology/wholehome> (accessed July 9, 2015); [http://support-us.samsung.com/cyber/popup/iframe/pop\\_troubleshooting\\_fr.jsp?modelName=UN46D6400UF&from\\_osc=&idx=394899&](http://support-us.samsung.com/cyber/popup/iframe/pop_troubleshooting_fr.jsp?modelName=UN46D6400UF&from_osc=&idx=394899&) (accessed July 9, 2015); [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/3979/~/\\_directv-hr34%2Fhr44-receiver-%28genie%29](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/3979/~/_directv-hr34%2Fhr44-receiver-%28genie%29) (accessed July 9, 2015) (genie User Guide); [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~/\\_directv-receiver-manuals](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~/_directv-receiver-manuals) (accessed July 9, 2015).

89. Defendants have provided and continue to provide product literature and information specifying that certain of their MoCA Products and/or systems or methods that

incorporate or employ MoCA Products operate in accordance with at least the MoCA 2.0 Standard, thereby indicating that Defendants specifically intended for their Customers to use the products and/or systems or methods in a way that would necessarily infringe standard-essential patent claims of the '404 patent.

90. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the '404 patent (at least as of the service of this Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(c), have contributorily infringed, and are contributorily infringing, the '404 patent, by selling and/or providing MoCA Products and/or systems that incorporate or employ MoCA Products to their Customers in the United States for use in practicing the patented methods, knowing that their MoCA Products and/or systems that incorporate or employ MoCA Products are material to practicing the claimed inventions, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are especially made or especially adapted for use in an infringement of the '404 patent. Such discovery or investigation will likely show that Defendants sold, provided, or facilitated the provision of their MoCA Products and/or systems that incorporate or employ MoCA Products to Customers knowing that the products and/or systems directly infringe the '404 patent when used for their normal and intended purpose, including by operating in accordance with at least the MoCA 2.0 Standard. *See, e.g.*, <http://www.directv.com/technology/wholehome> (accessed July 9, 2015); [http://support-us.samsung.com/cyber/popup/iframe/pop\\_troubleshooting\\_fr.jsp?modelname=UN46D6400UF&from\\_osc=&idx=394899&](http://support-us.samsung.com/cyber/popup/iframe/pop_troubleshooting_fr.jsp?modelname=UN46D6400UF&from_osc=&idx=394899&) (accessed July 9, 2015); [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/3979/~/\\_directv-hr34%2Fhr44-receiver-%28](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/3979/~/_directv-hr34%2Fhr44-receiver-%28)



[genie%29](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~/_directv-receiver-manuals) (accessed July 9, 2015) (genie User Guide); [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~/_directv-receiver-manuals)

[directv.com/app/answers/detail/a\\_id/2500/~/\\_directv-receiver-manuals](http://www.directv.com/app/answers/detail/a_id/2500/~/_directv-receiver-manuals) (accessed July 9, 2015).

The products and/or systems are made for the specific purpose of operating according to the MoCA 2.0 Standard and have no substantial non-infringing use. Defendants' Customers have directly infringed the '404 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with at least the MoCA 2.0 Standard.

91. As a result of Defendants' infringement of the '404 patent, TQ Delta has suffered damages and is entitled to monetary relief to compensate for the infringement, but in no event less than a reasonable royalty for the use of the invention by Defendants, together with interest and costs as fixed by the Court.

#### **COUNT VIII – INFRINGEMENT OF U.S. PATENT NO. 9,094,268**

92. TQ Delta hereby incorporates by reference paragraphs 1 through 35 of this Complaint.

93. On July 28, 2015, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 9,094,268 ("the '268 patent"), entitled "Multicarrier Transmission System With Low Power Sleep Mode and Rapid-On Capability." TQ Delta is the owner and assignee of the '268 patent. A copy of the '268 patent is attached as Exhibit 8.

94. Defendants, in violation of 35 U.S.C. § 271(a), have been and are directly infringing the '268 patent, including without limitation individually, jointly, and/or by attribution, by making, using, selling, offering to sell, and/or importing, without license or

authority, MoCA Products and/or systems or methods that incorporate or employ MoCA Products that operate in accordance with at least the MoCA 2.0 Standard.

95. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the '268 patent (at least as of the service of this First Amended Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(b), have knowingly induced, and are inducing, the direct infringement of one or more claims of the '268 patent by

- (1) (a) selling, leasing or otherwise providing to Customers,
- (b) providing Customers with support for, and/or
- (c) providing Customers with instructions for use of

Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products,

(2) with the intent to encourage those Customers to directly infringe the '268 patent by using Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products and practicing methods in accordance with at least the MoCA 2.0 Standard,

whereby Defendants' Customers have directly infringed the '268 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with at least the MoCA 2.0 Standard.

96. Upon information and belief, Defendants know that their Customers infringe the '268 patent, including without limitation individually, jointly, and/or by attribution, by the

normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with at least the MoCA 2.0 Standard. *See, e.g.*, <http://www.directv.com/technology/wholehome> (accessed September 2, 2015); [http://support-us.samsung.com/cyber/popup/iframe/pop\\_troubleshooting\\_fr.jsp?modelName=UN46D6400UF&from\\_osc=&idx=394899&](http://support-us.samsung.com/cyber/popup/iframe/pop_troubleshooting_fr.jsp?modelName=UN46D6400UF&from_osc=&idx=394899&) (accessed September 2, 2015); [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/3979/~~/directv-hr34%2Fhr44-receiver-%28genie%29](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/3979/~~/directv-hr34%2Fhr44-receiver-%28genie%29) (accessed September 2, 2015) (genie User Guide); [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~~/directv-receiver-manuals](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~~/directv-receiver-manuals) (accessed September 2, 2015).

97. Defendants have provided and continue to provide product literature and information specifying that certain of their MoCA Products and/or systems or methods that incorporate or employ MoCA Products operate in accordance with at least the MoCA 2.0 Standard, thereby indicating that Defendants specifically intended for their Customers to use the products and/or systems or methods in a way that would necessarily infringe standard-essential patent claims of the '268 patent.

98. Upon information and belief, a reasonable opportunity for further investigation or discovery will likely show that, with knowledge or willful blindness of the existence of the '268 patent (at least as of the service of this First Amended Complaint and/or earlier as set forth in paragraphs 11-35 above), Defendants, in violation of 35 U.S.C. § 271(c), have contributorily infringed, and are contributorily infringing, the '268 patent, by selling and/or providing MoCA Products and/or systems that incorporate or employ MoCA Products to their Customers in the

United States for use in practicing the patented methods, knowing that their MoCA Products and/or systems that incorporate or employ MoCA Products are material to practicing the claimed inventions, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and are especially made or especially adapted for use in an infringement of the '268 patent. Such discovery or investigation will likely show that Defendants sold, provided, or facilitated the provision of their MoCA Products and/or systems that incorporate or employ MoCA Products to Customers knowing that the products and/or systems directly infringe the '268 patent when used for their normal and intended purpose, including by operating in accordance with at least the MoCA 2.0 Standard. *See, e.g.,* <http://www.directv.com/technology/wholehome> (accessed September 2, 2015); [http://support-us.samsung.com/cyber/popup/iframe/pop\\_troubleshooting\\_fr.jsp?modelName=UN46D6400UF&from\\_osc=&idx=394899&](http://support-us.samsung.com/cyber/popup/iframe/pop_troubleshooting_fr.jsp?modelName=UN46D6400UF&from_osc=&idx=394899&) (accessed September 2, 2015); [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/3979/~~/directv-hr34%2Fhr44-receiver-%28genie%29](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/3979/~~/directv-hr34%2Fhr44-receiver-%28genie%29) (accessed September 2, 2015) (genie User Guide); [http://www.directv.com/learn/pdf/System\\_Manuals/DIRECTV/DIRECTV\\_HDDVR\\_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a\\_id/2500/~~/directv-receiver-manuals](http://www.directv.com/learn/pdf/System_Manuals/DIRECTV/DIRECTV_HDDVR_HR20-44.pdf?referrer=https://support.directv.com/app/answers/detail/a_id/2500/~~/directv-receiver-manuals) (accessed September 2, 2015). The products and/or systems are made for the specific purpose of operating according to at least the MoCA 2.0 Standard and have no substantial non-infringing use. Defendants' Customers have directly infringed the '268 patent, including without limitation individually, jointly, and/or by attribution, at least by the normal and intended use of Defendants' MoCA Products and/or systems or methods that incorporate or employ MoCA Products, systems, and/or methods, including by use in accordance with at least the MoCA 2.0 Standard.

99. As a result of Defendants' infringement of the '268 patent, TQ Delta has suffered damages and is entitled to monetary relief to compensate for the infringement, but in no event less than a reasonable royalty for the use of the invention by Defendants, together with interest and costs as fixed by the Court.

### **PRAYER FOR RELIEF**

WHEREFORE, TQ Delta, respectfully requests that the following relief:

A. That the Court enter judgment in favor of TQ Delta that Defendants have infringed TQ Delta's '369 patent, '158 patent, '243 patent, '430 patent, '412 patent, '956 patent, '404 patent, and '268 patent;

B. That the Court enter an order declaring that Plaintiff has no RAND obligations and further enter a permanent injunction under 35 U.S.C. § 283 enjoining Defendants and their officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert or participation with it, from infringement of TQ Delta's TQ Delta's '369 patent, '158 patent, '243 patent, '430 patent, '412 patent, '956 patent, '404 patent, and '268 patent;

C. That the Court enter a judgment and order under 35 U.S.C. § 284 requiring Defendants to pay TQ Delta its damages, costs, expenses, and pre-judgment and post-judgment interest for Defendants' infringement of TQ Delta's TQ Delta's '369 patent, '158 patent, '243 patent, '430 patent, '412 patent, '956 patent, '404 patent, and '268 patent;

D. That the Court find this case exceptional under 35 U.S.C. § 285, and award TQ Delta its treble damages, along with its costs and fees in this action, including reasonable attorney's fees and pre-judgment interest thereon; and

E. That the Court grant TQ Delta such other and further relief as it deems just and proper.

**DEMAND FOR JURY TRIAL**

TQ Delta, pursuant to Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable.

Dated: September 9, 2015

Respectfully submitted,

FARNAN LLP

/s/ Brian E. Farnan

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