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IN THE UNITED STATES DISTRICT COURT  
DISTRICT OF ARIZONA

Microchip Technology Inc.,

Plaintiff,

vs.

Delphi Automotive Systems, LLC

Defendant.

No. 2:16-cv-02817-DJH

**FIRST AMENDED COMPLAINT**

**Jury Trial Demanded**

Plaintiff Microchip Technology Inc. (“MTI”) files this first amended complaint against Defendant Delphi Automotive Systems, LLC ( “Delphi”) as set forth below.

**I. PARTIES**

1. Plaintiff Microchip Technology Inc. is a Delaware corporation with its principal place of business located at 2355 West Chandler Blvd., Chandler, Arizona 85224-6199.

2. Defendant Delphi Automotive Systems, LLC is a Delaware limited liability company with a principal place of business at 5725 Delphi Dr., Troy, Michigan 48098, and is a subsidiary of Delphi Automotive, PLC.

## **II. ACTION**

3. This is an action for patent infringement arising under the laws of the United States, 35 U.S.C. § 101 et seq.

## **III. JURISDICTION AND VENUE**

4. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

5. Delphi is subject to personal jurisdiction by virtue of its contacts with the State of Arizona. As more fully described below, Delphi voluntarily sells products and offers products for sale in this District and, in addition, sells products to be incorporated into larger systems and products sold in this District, which are the subject of MTI's claims of patent infringement.

6. Venue is proper in this District under 28 U.S.C. §§ 1391(b)-(c) and 1400(b).

## **IV. FACTS**

7. U.S. Patent No. 7,523,243, entitled "Multi-Host USB Device Controller" ("the '243 Patent"), was duly and legally issued by the U.S. Patent and Trademark Office to Mark R. Bohm et al. on April 21, 2009. The '243 Patent discloses and claims systems and methods for use with multi-host capable Universal Serial Bus ("USB") device controllers. A true and correct copy of the '243 Patent is attached hereto as **Exhibit A.**

8. U.S. Patent No. 7,627,708, entitled "Multi-Host USB Device" ("the '708 Patent"), was duly and legally issued by the U.S. Patent and Trademark Office to Mark R. Bohm et al. on December 1, 2009. The '708 Patent discloses and claims systems and methods for use with USB devices that may be configured and accessed by more than

one USB host. A true and correct copy of the '708 Patent is attached hereto as

**Exhibit B.**

9. U.S. Patent No. 7,478,191, entitled "Method for Automatically Switching USB Peripherals Between USB Hosts" ("the '191 Patent"), was duly and legally issued by the U.S. Patent and Trademark Office to Henry Wurzburg et al. on January 13, 2009. The '191 Patent discloses and claims systems and methods for automatically switching peripheral connectivity between two USB host devices based on respective connectivity of the USB hosts. A true and correct copy of the '191 Patent is attached hereto as

**Exhibit C.**

10. Mark R. Bohm, Henry Wurzburg, and the other inventors assigned all right, title, and interest in the '243 Patent, the '708 Patent, and the '191 Patent (the "Asserted Patents") to Standard Microsystems Corporation.

11. On July 21, 2015, Standard Microsystems Corporation converted from a corporation to a limited liability company, changing its name to Standard Microsystems, LLC.

12. On August 5, 2016, Standard Microsystems, LLC assigned all right, title, and interest in the Asserted Patents to MTI. MTI has been at all times since, and still is, the owner of the Asserted Patents.

13. Delphi makes, uses, sells, offers to sell, and/or imports a Dual Role Hub product, (also described by Delphi and others as the Multi-Port Breakout Box, Media Hub, and/or Unwired Technology Media Hub) (collectively, "Delphi Dual Role Hub" or "Hub") which implements multi-host type USB devices in an automotive infotainment system environment and, specifically, provides a "host to host" device which enables multi-host functionality, e.g., so that both the infotainment system head unit and a smartphone can act as USB hosts in the system.

14. Upon information and belief, the Delphi Dual Role Hub was originally designed by Unwired Technology LLC, a company that Delphi purchased in 2014. A September 30, 2014 Delphi press release discusses Delphi's purchase of Unwired

1 Technology, explaining that “Unwired’s connectivity products provide two-way data  
2 connections between smartphones and tablets and in-car infotainment systems, allowing  
3 consumers to safely access content in the vehicle.” A true and correct copy of that site  
4 (as visited on October 20, 2016) is attached as **Exhibit D** (available at  
5 [http://investor.delphi.com/investors/press-releases/press-release-details/2014/Delphi-](http://investor.delphi.com/investors/press-releases/press-release-details/2014/Delphi-Signs-Definitive-Agreement-to-Acquire-Unwired-Technology-LLC/default.aspx)  
6 [Signs-Definitive-Agreement-to-Acquire-Unwired-Technology-LLC/default.aspx](http://investor.delphi.com/investors/press-releases/press-release-details/2014/Delphi-Signs-Definitive-Agreement-to-Acquire-Unwired-Technology-LLC/default.aspx)).

7 15. According to Delphi’s website ([http://delphi.com/media/feature-](http://delphi.com/media/feature-stories/details/18th-PACE-Award-Dual-Role-Hub)  
8 [stories/details/18th-PACE-Award-Dual-Role-Hub](http://delphi.com/media/feature-stories/details/18th-PACE-Award-Dual-Role-Hub)), the Delphi Dual Role Hub allows  
9 the car radio and a user’s phone “to be recognized as ‘host’ devices simultaneously.” A  
10 true and correct copy of that site (as visited on October 18, 2016) is attached as  
11 **Exhibit E**.

12 16. According to the same Delphi website, the Delphi Dual Role Hub is “in  
13 every mid- and high-level infotainment system for GM globally for model year 2015.  
14 Next year, Delphi will solve that problem for more than 40 percent of all GM, Ford and  
15 Chrysler products globally, representing 10 million units annually with the potential to  
16 reach all OEMs globally.” See **Exhibit E**.

17 17. According to the same Delphi website, “Delphi’s solution is currently the  
18 only known IC globally that has both hub functionality and host to host bridging . . . .”

19 18. On information and belief, Delphi markets and promotes the Delphi Dual  
20 Role Hub in the video available at <https://vimeo.com/162512071> titled “New USB Hub  
21 Helps Automakers’ Make Apple CarPlay™ Work Simultaneously with Other Devices”  
22 (hereinafter, the “Delphi Promotional Video”).

23 19. The Delphi Promotional Video describes the Delphi Dual Role Hub as  
24 follows: “CarPlay operates by simply connecting the Apple phone to a USB connector  
25 in the car. When the Apple phone is connected, the infotainment system allows the  
26 Apple phone to become the host of the USB communication and to stream content right  
27 onto the screen. But when an automaker integrates Apple CarPlay into its infotainment  
28 system, it must allow the Apple phone to be the host of the USB communication. This

1 is typically done by using an On-The-Go USB port on the head unit, which would  
2 change from a host to a device to support the CarPlay session. Delphi has solved these  
3 challenges by providing a USB hub that offers a unique way to bridge two hosts  
4 together without these drawbacks. Now users can have their personal content replicated  
5 in the vehicle while also allowing other passengers to use content at the same time from  
6 a different device. This solution, called Dual Role Hub, gives automakers a unique way  
7 to implement CarPlay and provide greater functionality with optimized packaging.  
8 Delphi's USB hub with host-to-host bridge is integrated into USB media modules, like  
9 the one in this vehicle. In this highly compact module, Delphi can perform the standard  
10 USB hub function while accommodating Apple CarPlay. There are three key features  
11 of the Delphi USB hub with host-to-host bridge. First, only one USB port is required to  
12 access the USB hub from the head unit, which remains the host port. Second, the  
13 Delphi USB hub with the host-to-host bridge allows either USB port on the module to  
14 support CarPlay. Third, the USB port in the host-to-host system not used for CarPlay is  
15 still active and can be used for accessing music on a USB drive, accessing map data for  
16 the navigation system, or accessing another phone or iPhone."

17 20. As driven, sold, and offered for sale in the state of Arizona, 2016 Cadillac  
18 Escalade automobiles include Part No. 13596853, "Receptacle ASM-USB 2-port  
19 w/REM."

20 21. Part No. 13596853 for the 2016 Cadillac Escalade is available for  
21 purchase through Arrowhead Cadillac, located at 8310 West Bell Road, Glendale,  
22 Arizona 85083. A true and correct photograph of Part No. 13596853, purchased at  
23 Arrowhead Cadillac, is attached as **Exhibit F**.

24 22. Part No. 13596853, purchased at Arrowhead Cadillac, is stamped with the  
25 name "UNWIRED TECHNOLOGY." A true and correct photograph of Part No.  
26 13596853 that shows this stamp is attached as **Exhibit G**.

1           23.    Upon information and belief, Part No. 13596853 (i.e., the “Receptacle  
2   ASM-USB 2-port w/REM”), purchased at Arrowhead Cadillac, is and/or includes the  
3   Delphi Dual Role Hub as made and sold by Delphi.

4           24.    On information and belief, the Accused Products are sold by Delphi with  
5   knowledge they are incorporated in at least the following 2016 models: Cadillac  
6   Escalade; Chevrolet Suburban and Tahoe; and GMC Yukon and Yukon XL.

7           25.    A traditional USB hub (e.g., according to the USB specification) cannot  
8   recognize two devices simultaneously as host devices.

9           26.    The Delphi Dual Role Hub contains specially-designed circuitry that  
10   allows the Hub to recognize the car radio and a user’s phone simultaneously as host  
11   devices.

12          27.    The specially-designed circuitry in the Delphi Dual Role Hub includes a  
13   multi-host device controller that allows both the car radio and a user’s phone to  
14   simultaneously access the Hub as hosts.

15          28.    When a user’s phone is connected to the Delphi Dual Role Hub, it initially  
16   connects as a USB device and not as a USB host.

17          29.    In order to allow the user’s phone to be recognized as a host after it  
18   initially connects to the Hub as a USB device, the Delphi Dual Role Hub includes  
19   switching logic that controls the connections available to the car radio and the user’s  
20   phone. This switching logic (and other circuitry) allows the two devices to be  
21   simultaneously recognized as host devices.

22          30.    The specially-designed circuitry in the Delphi Dual Role Hub includes at  
23   least one USB device block that allows the Hub to recognize the car radio and a user’s  
24   phone simultaneously as host devices. Monitoring the USB signaling (e.g., data  
25   communications) on the connection between (1) the car radio and the Hub, and (2) the  
26   Hub and a phone confirms the existence of at least one USB device block in the Hub.

27          31.    The specially-designed circuitry in the Delphi Dual Role Hub includes at  
28   least one USB function block that allows the Hub to recognize the car radio and a user’s

1 phone simultaneously as host devices. Monitoring the USB signaling (e.g., data  
2 communications) between (1) the car radio and the Hub, and (2) the Hub and a phone  
3 confirms the existence of at least one USB function block in the Hub.

4 32. At least since the filing date of MTI's Original Complaint on August 22,  
5 2016, Delphi has had knowledge of the Asserted Patents and has been on notice of its  
6 infringement of one or more claims of the Asserted Patents.

7 33. On January 12, 2015, MTI delivered a letter to Robert Voto, Vice  
8 President of Engineering, and Joseph Damato, Managing Director, at Delphi Data  
9 Connectivity (formerly Unwired Technology LLC), providing notice of the '243 Patent  
10 and the '708 Patent, and identifying Delphi's USB device controllers developed by  
11 Unwired Technology that are designed for multiple-host connectivity as covered by the  
12 claims of those patents. A true and correct copy of the January 12, 2015 letter is  
13 attached as **Exhibit H**.

14 34. On January 30, 2015, Delphi responded to the January 12, 2015 letter  
15 above the signature of Craig A. Baldwin, North American Patent Counsel of Delphi.  
16 This letter acknowledged the letter of January 12, 2015, and asserted that Delphi  
17 reviewed the '243 Patent and the '708 Patent in view of Delphi's products and/or  
18 products in development.

19 35. Delphi sells the Delphi Dual Role Hub to automotive manufacturers and  
20 other entities with the knowledge and intent that the Hub will be incorporated in  
21 automotive infotainment systems to be later incorporated and sold as part of an  
22 automobile and/or other final products. The Hub alone infringes the Asserted Patents, is  
23 material to practicing the Asserted Patents, has no substantial non-infringing uses, and is  
24 known by Delphi to be especially made or especially adapted for use in an infringement  
25 of the Asserted Patents.

26 36. Upon information and belief, Delphi tests the Delphi Dual Role Hub, for  
27 example, by connecting more than one host to the Hub such that the Hub  
28 simultaneously recognizes them as host devices.

1           37. Upon information and belief, Delphi's customers test the Delphi Dual  
2 Role Hub, for example, by connecting more than one host to the Hub such that the Hub  
3 simultaneously recognizes them as host devices.

4 **IV. INFRINGEMENT**

5           38. Delphi has and continues to infringe, induce the infringement of, and/or  
6 contributorily infringe at least claim 1 of the '243 Patent, claim 3 of the '708 Patent, and  
7 claim 7 of the '191 Patent.

8           39. End users of the Delphi Dual Role Hub, including Delphi's customers and  
9 individuals using automobiles that include the Delphi Dual Role Hub, have been and  
10 still are infringing the Asserted Patents by making, using, selling, offering to sell, and/or  
11 importing the Delphi Dual Role Hub products and/or products that contain the Delphi  
12 Dual Role Hub.

13           40. Delphi has been and still is inducing infringement and contributing to  
14 infringement of the Asserted Patents by providing its Delphi Dual Role Hub products to  
15 other entities with knowledge of the Asserted Patents and knowledge the Accused  
16 Products will be part of additional infringing products made, used, sold, offered for sale,  
17 and/or imported by Delphi's customers.

18           41. Delphi purchased Unwired Technology LLC because its "connectivity  
19 products provide two-way data connections between smartphones and tablets and in-car  
20 infotainment systems." The Delphi Dual Role Hub is, therefore, especially made for  
21 use in an infringement of the Asserted Patents, as described above, by providing a USB  
22 hub that can simultaneously recognize two hosts while maintaining connections to other  
23 non-host devices plugged into the Hub. The Delphi Dual Role Hub has no substantial  
24 non-infringing use because it is specifically designed, marketed, and sold to automobile  
25 manufacturers for use in automobiles that support a multi-host system that allow end  
26 users to use a phone as a host in the system while the car radio is also a host. On  
27 information and belief, in the absence of reconfiguration, the Delphi Dual Role Hub  
28 cannot be used for purposes other than infringing the Asserted Patents.



1           42.    On information and belief, at least as early as the above dates when  
2 Delphi learned of each of the Asserted Patents, Delphi actively induced its direct and  
3 indirect customers, including for example and without limitation, automobile  
4 manufacturers and end users such as those using the Hub in an automobile. Delphi's  
5 acts of inducing infringement include marketing, promoting (including providing  
6 instructions for use, e.g. the Delphi Promotional Video), selling, offering for sale, and/or  
7 importing the Accused Products. On information and belief, at least as early as the  
8 above dates when Delphi learned of each of the Asserted Patents, Delphi knew that the  
9 activities of the foregoing third parties, including the activities taught by the  
10 aforementioned marketing and promotional materials, constituted direct infringement of  
11 the Asserted Patents and had specifically intended the foregoing third parties to directly  
12 infringe the Asserted Patents through their using, testing, selling, offering for sale,  
13 and/or importing the Accused Products.

14           43.    At least since January 12, 2015, Delphi has been on notice of the '243  
15 Patent and the '708 Patent. Delphi's infringement of the '243 Patent and the '708  
16 Patent has been willful and deliberate since this date.

17           44.    At least since August 22, 2016, Delphi has been on notice of the '191  
18 Patent. Delphi's infringement of the '191 Patent has been willful and deliberate since  
19 this date.

20           45.    Upon information and belief, Delphi will continue to infringe, induce  
21 infringement of, and contribute to infringement of the Asserted Patents unless enjoined  
22 by this Court.

23           46.    As a result of Delphi's infringement, MTI has suffered and will continue  
24 to suffer damages in an amount to be proven at trial.

25           47.    As a result of Delphi's infringement, MTI has suffered and will continue  
26 to suffer irreparable harm unless Delphi is enjoined against such acts by this Court.

27           48.    MTI is entitled to an award of its reasonable attorneys' fees, as provided  
28 by 35 U.S.C. § 285.

**V. PRAYER FOR RELIEF**

WHEREFORE, MTI prays for judgment and seeks relief against Delphi as follows:

- (a) for a judgment that one or more claims of the Asserted Patents are infringed by the Delphi Dual Role Hub products;
- (b) for a judgment and award of all damages sustained by MTI as the result of Delphi's infringement, including supplemental damages for any continuing post-verdict infringement up until entry of the final Judgment with an accounting as needed;
- (c) for preliminary and permanent injunctions enjoining Delphi from making, using, selling, offering to sell, and/or importing its Dual Role Hub products for sale and/or combination into multi-host USB device products and methods;
- (d) for a judgment and an award of enhanced damages pursuant to 35 U.S.C. § 284;
- (e) for a judgment and an award of attorneys' fees pursuant to 35 U.S.C. § 285 or as otherwise permitted by law;
- (f) for a judgment and an award of all interest and costs incurred; and
- (g) for a judgment and an award of such other and further relief as the Court may deem just and proper.

**VI. JURY DEMAND**

MTI demands a trial by jury.

DATED this 8th day of November, 2016.

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**CERTIFICATE OF SERVICE**

I hereby certify that on November 8, 2016, I electronically transmitted the attached document(s) to the Clerk's Office using the CM/ECF System for filing and transmittal of a Notice of Electronic Filing to the parties who are CM/ECF registrants.

s/ Debra Huss