IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

AUTOCONNECT HOLDINGS LLC, ***Plaintiff,*** **v.** **TOYOTA MOTOR CORPORATION, ET AL.,** ***Defendants.***	**Case No. 2:24-cv-00802-JRG-RSP** (Lead Case)
AUTOCONNECT HOLDINGS LLC, ***Plaintiff,*** **v.** **GENERAL MOTORS LLC** ***Defendants.***	**Case No. 2:24-cv-00877-JRG-RSP** (Member Case)

DEFENDANTS' PRELIMINARY INVALIDITY CONTENTIONS

Pursuant to Patent Local Rules ("P.R.") 3-3 and 3-4 and the Court's First Amended Docket Control Order (Dkt. No. 53), Defendants Toyota Motor Corporation ("TMC"), Toyota Motor North America, Inc. ("TMNA"), Toyota Motor Engineering & Manufacturing North America, Inc. ("TME"), and Toyota Motor Sales, U.S.A, Inc. ("TMS") (collectively, the "Toyota Defendants"); and General Motors LLC ("GM") (collectively with the Toyota Defendants, "Defendants") hereby make the following initial Invalidity Contentions and provide accompanying document production.

9. State of the Art for the ’100 patent

The ’100 patent relates to systems and methods for network security in a vehicle. The ’100 patent is entitled to a priority date no earlier than March 14, 2013.

The claims of the ’100 patent are generally directed to detecting an instance of a security breach in a vehicle perimeter network and isolating an affected component. By March 2013, the concepts of vehicle security systems reflected in the claims of the ’100 patent were already well-known and commonplace in the automotive industry and in the field of network security more generally. As demonstrated in the prior art cited below, in the Exhibit O claim charts, and in other references demonstrating the state of the art and knowledge of a person of ordinary skill, these concepts were already routine and developed in the field.

B. Prior Art Patents and Publications

The following prior art references, including the references identified in Defendants’ obviousness appendices, anticipate and/or render obvious (*e.g.,* as primary references, secondary references, and/or general background) the asserted claims of the corresponding patent. These contentions include a series of exemplary charts, attached for each respective primary reference, as well as additional references and disclosures that render certain claim elements obvious. Based, in part, on Defendants’ understanding of AutoConnect’s Infringement Contentions, each exemplary chart identifies specific examples of where each limitation of the asserted claims is found in that reference.

To the extent Plaintiff asserts that any of the primary references does not anticipate the asserted claims, it would have been obvious to combine or modify them with concepts apparent from the state of the art, as explained in Section II.A above, from other prior art, as explained in the exemplary charts and in this document, or in view of the knowledge of one of ordinary skill

Ex.	Country	Name/Patent/ Application No.	Filing/Publication/ Issue Date	Inventor(s)	35 U.S.C. Section 102
	NPL	Service and User Interface Transfer from Nomadic Devices to Car Infotainment Systems	Nov. 11-12, 2010	Sonnenberg	Pre-AIA 102(a) and (b)
	NPL	Morphing Smart-phones into Automotive Application Platforms	May 2011	Bose et al.	Pre-AIA 102(a)
	NPL	Terminal Mode — Transforming Mobile Devices into Automotive Application Platforms	Nov. 11-12, 2010	Bose et al.	Pre-AIA 102(a) and (b)
	NPL	*See also* documents related to system art listed *infra* II.C			

3. U.S. Patent No. 9,020,697

Ex.	Country	Name/Patent/ Application No.	Filing/Publication/ Issue Date	Inventor(s)	35 U.S.C. Section 102
C-1	US	10776103	Aug. 9, 2019 / Nov. 28, 2019 / Sept. 15, 2020 Provisional application No. 61/577,657, filed on Dec. 19, 2011.	Gordon et al.	AIA 102(a)(2)
C-2	US	8344870	Oct. 7, 2009 / May 27, 2010 / Jan. 1, 2013	Evans et al.	AIA 102(a)(1) and (a)(2)
C-3	US	20110136435	Feb. 16, 2011 / June 9, 2011 / April 22, 2014	Taniguchi	AIA 102(a)(1) and (a)(2)
C-4	US	7388466	Nov. 30, 2004 / June 1, 2006 / June 17, 2008	Ghabra et al.	AIA 102(a)(1) and (a)(2)
C-5	US	8344850	Oct. 30, 2009 / May 5, 2011 / Jan. 1, 2013	Girard et al.	AIA 102(a)(1) and (a)2
C-6	JP	2005297796	April 13, 2004 / Oct. 27, 2005 / N/A	Kubota	AIA 102(a)(1)
C-7	JP	2010274683	May 26, 2009 / Dec. 9, 2010 / April 3, 2013	Mimura et al.	AIA 102(a)(1)

Ex.	Country	Name/Patent/ Application No.	Filing/Publication/ Issue Date	Inventor(s)	35 U.S.C. Section 102
	NPL	*See also* documents related to system art listed *infra* II.C			

5. U.S. Patent No. 9,123,186

Ex.	Country	Name/Patent/ Application No.	Filing/Publication/ Issue Date	Inventor(s)	35 U.S.C. Section 102
E-1	US	10776103	Aug. 9, 2019 / Nov. 28, 2019 / Sept. 15, 2020 Provisional application No. 61/577,657, filed on Dec. 19, 2011.	Gordon et al.	AIA 102(a)(2)
E-2	US	8344870	Oct. 7, 2009 / May 27, 2010 / Jan. 1, 2013	Evans et al.	AIA 102(a)(1) and (a)(2)
E-3	US	20110136435	Feb. 16, 2011 / June 9, 2011 / April 22, 2014	Taniguchi	AIA 102(a)(1) and (a)(2)
E-4	US	7388466	Nov. 30, 2004 / June 1, 2006 / June 17, 2008	Ghabra et al.	AIA 102(a)(1) and (a)(2)
E-5	US	8344850	Oct. 30, 2009 / May 5, 2011 / Jan. 1, 2013	Girard et al.	AIA 102(a)(1) and (a)2
E-6	US	2008/0215209	Feb. 28, 2008 / Sep. 4, 2008 / Nov. 3 2015	Ikeda et al.	AIA 102(a)(1) and (a)(2)
E-7	JP	2005297796	April 13, 2004 / Oct. 27, 2005 / N/A	Kubota	AIA 102(a)(1)
E-8	JP	2005299468	April 9, 2004 / Oct. 27, 2005 / N/A	Eguchi	AIA 102(a)(1) and (a)(2)
E-9	JP	2010274683	May 26, 2009 / Dec. 9, 2010 / April 3, 2013	Mimura et al.	AIA 102(a)(1)
E-10	EP	1211141	Oct. 31, 2001 / June 5, 2002 / N/A	Morehouse	AIA 102(a)(1)
E-11	JP	2004025937	June 21, 2002 / Jan. 29, 2004 / Nov. 3, 2009	Otaki et al.	AIA 102(a)(1)
	US	8768412	Feb. 5, 2008 / Oct. 23, 2008 / July 1, 2014	Bauer et al.	AIA 102(a)(1) and (a)(2)
	US	8484686	Nov. 2, 2009 / June 3, 2010 / July 9, 2013	Bird et al.	AIA 102(a)(1) and (a)(2)
	US	20120242510	Oct. 7, 2011 / Sept. 27, 2012 / May 6, 2014	Choi et al.	AIA 102(a)(1) and (a)(2)
	US	20140157355	June 20, 2013 / June 5, 2014 / N/A Provisional application No. 61/662,189, filed on Jun. 20, 2012	Clancy et al.	AIA 102(a)(2)

Ex.	Country	Name/Patent/ Application No.	Filing/Publication/ Issue Date	Inventor(s)	35 U.S.C. Section 102
	JP	JP2003283421	May 10, 2002 / Oct. 3, 2003 / Dec. 12, 2007	Fujita et al.	AIA 102(a)(1)
	US	2012/0254960	Mar. 31, 2011 / Oct. 4, 2012 / N/A	Lortz	AIA 102(a)(1) and (a)(2)
	US	8,473,575	Aug. 26, 2010 / March 1, 2012 / June 25, 2013	Marchwicki et al.	AIA 102(a)(1) and (a)(2)
	US	20070208861	Mar. 2, 2006 / Sept. 6, 2007 / N/A	Zellner et al.	AIA 102(a)(1) and (a)(2)
	NPL	Image-Based Passenger Detection And Localization Inside	Jan. 2000	Faber	AIA 102(a)(1)
	NPL	A Drowsy Driver Detection System For Heavy Vehicles	1998	Grace et al.	AIA 102(a)(1)
	NPL	Supporting Implicit Human-to-Vehicle Interaction: Driver Identification from Sitting Postures	Aug. 2008	Riener et al.	AIA 102(a)(1)
	NPL	Smarteye - Vehicle Security System Using Facial Recognition	May 2007	Ritikos	AIA 102(a)(1)
	NPL	*See also* documents related to system art listed *infra* II.C			

8. U.S. Patent No. 9,290,153

Ex.	Country	Name/Patent/ Application No.	Filing/Publication/ Issue Date	Inventor(s)	35 U.S.C. Section 102
H-1	US	10776103	Aug. 9, 2019 / Nov. 28, 2019 / Sept. 15, 2020 Provisional application No. 61/577,657, filed on Dec. 19, 2011.	Gordon et al.	AIA 102(a)(2)
H-2	US	8344870	Oct. 7, 2009 / May 27, 2010 / Jan. 1, 2013	Evans et al.	AIA 102(a)(1) and (a)(2)
H-3	US	20110136435	Feb. 16, 2011 / June 9, 2011 / April 22, 2014	Taniguchi	AIA 102(a)(1) and (a)(2)
H-4	JP	2005299468	April 9, 2004 / Oct. 27, 2005 / N/A	Eguchi	AIA 102(a)(1) and (a)(2)

Ex.	Country	Name/Patent/ Application No.	Filing/Publication/ Issue Date	Inventor(s)	35 U.S.C. Section 102
H-5	US	7388466	Nov. 30, 2004 / June 1, 2006 / June 17, 2008	Ghabra et al.	AIA 102(a)(1) and (a)(2)
H-6	US	8344850	Oct. 30, 2009 / May 5, 2011 / Jan. 1, 2013	Girard et al.	AIA 102(a)(1) and (a)2
H-7	JP	2005297796	April 13, 2004 / Oct. 27, 2005 / N/A	Kubota	AIA 102(a)(1)
H-8	JP	2010274683	May 26, 2009 / Dec. 9, 2010 / April 3, 2013	Mimura et al.	AIA 102(a)(1)
H-9	JP	2004025937	June 21, 2002 / Jan. 29, 2004 / Nov. 3, 2009	Otaki et al.	AIA 102(a)(1)
	US	8768412	Feb. 5, 2008 / Oct. 23, 2008 / July 1, 2014	Bauer et al.	AIA 102(a)(1) and (a)(2)
	US	8484686	Nov. 2, 2009 / June 3, 2010 / July 9, 2013	Bird et al.	AIA 102(a)(1) and (a)(2)
	US	20120242510	Oct. 7, 2011 / Sept. 27, 2012 / May 6, 2014	Choi et al.	AIA 102(a)(1) and (a)(2)
	US	20140157355	June 20, 2013 / June 5, 2014 / N/A Provisional application No. 61/662,189, filed on Jun. 20, 2012	Clancy et al.	AIA 102(a)(2)
	US	20150099495	Dec. 12, 2014 / April 9, 2015 / June 21, 2016 Provisional application No. 61/953,506, filed on Mar. 14, 2014	Crosbie et al.	AIA 102
	US	20140163774	March 15, 2013 / June 12, 2014 / Dec. 29, 2015	Demeniuk	AIA 102(a)(2)
	US	8402268	June 11, 2010 / Dec. 16, 2010 / March 19, 2013	Dierickx	AIA 102(a)(1) and (a)(2)
	US	10405177	May 18, 2018 / Sept. 20, 2018 / Sept. 3, 2019 It’s a continuation that traces back to an application No. 12/191,282, filed on Aug. 13, 2008.	Graessley	AIA 102(a)(1) and (a)(2)
	US	7181511	April 15, 2002 / Feb. 20, 2007 / Feb. 20, 2007	Grenier et al.	AIA 102(a)(1) and (a)(2)
	US	20110183601	March 4, 2011 / July 28, 2011 / May 6, 2014	Hannon	AIA 102(a)(1) and (a)(2)
	US	8319605	June 19, 2008 / Dec. 2, 2010 / Nov. 27, 2012	Hassan et al.	AIA 102(a)(1) and (a)(2)

unique ID within the Smart Key using the same communications methods the Smart Key System employed.

Other exemplary combinations of references that render obvious the asserted claims of the ’697 and ’153 Patents include:

1. Gordon in view of any one or more of Smart Key, Taniguchi, Mimura, Otaki, or Ikeda ’209, and in further view of the knowledge of a POSITA.
2. Ikeda ’209 in view of any one or more of Smart Key, Taniguchi, Gordon, and/or the knowledge of a POSITA.
3. Mimura in view of any one or more of Smart Key, Taniguchi, Gordon, and/or the knowledge of a POSITA.
4. Evans in view of any one or more of Smart Key, Ikeda ’209, Gordon.
5. Ghabra in view of any one or more of Gordon, Evans, or Taniguchi.
6. Girard in view of any one or more of Gordon, Evans, or Taniguchi.

Any of the foregoing combinations would render the asserted claims of the ’153 or ’697 Patent obvious at least because they (1) demonstrate nothing more than a combination of prior art elements according to known methods to yield predictable results, (2) they apply known techniques (*e.g.*, storing a digital key in a mobile device) to known devices, methods, or products ready for improvement (*e.g.*, passive, two-way door unlocking or engine starting) to yield predictable results, or (3) are nothing more than predictable variations of known work in one field of endeavor (e.g., passive, two-way door unlocking or engine starting) based on design incentives or other market forces (proliferation of smart phones in the market capable of carrying out the same passive, two-way door unlocking or engine starting using the same communications protocols and technology (e.g., RFID and/or Bluetooth®).

Ikeda ’209, or Morehouse would have taught receiving a request from a vehicle occupant to perform a task, determining that the occupant has been authenticated, accessing an account for the occupant that defines rights and privileges of the occupant with respect to vehicle tasks.

A POSITA would have been motivated to combine any one of Gordon, Mimura, Ghabra, Girard, or Smart Key in view of one or more of the knowledge of a POSITA, Evans, Ikeda ’209, or Morehouse, or any other similar art disclosure in the Exhibit E charts for the reasons explained above. A POSITA would also have been motivated to receiving a request by way of a microprocessor executable vehicle control system, from a vehicle occupant to perform a task, determining that the occupant has been authenticated, accessing an account for the occupant that defines rights and privileges of the occupant with respect to vehicle tasks because doing so would have the advantage of tying the vehicle task requests and personal preferences of a vehicle occupant to a user account that could be tracked, analyzed, or otherwise used to improve the user experience.

A POSITA would have a reasonable expectation of success in combining any one of Gordon, Mimura, Ghabra, Girard, or Smart Key in view of one or more of the knowledge of a POSITA, Evans, Ikeda ’209, or Morehouse, because the means to carry out a vehicle task or track occupant preferences requires computer infrastructure that would equally be necessary and applicable to user account-driven systems. Put another way, the vehicle systems or networks would already be recording any directions or data relating to vehicle occupant requests to carry out a vehicle task, and a POSITA would recognize that storing that data in a user account-focused structure would be one of the few most common ways to organize user data.

Other exemplary combinations of references that render the asserted claims of the ’186 Patent obvious include:

1. Taniguchi in view of any one or more of Gordon, Mimura, Ghabra, Girard, or Smart Key, and further in view of the knowledge of a POSITA.
2. Otaki in view of any one or more of Gordon, Mimura, Ghabra, Girard, or Smart Key, and further in view of the knowledge of a POSITA.
3. Gordon in view of Morehouse, and further in view of the knowledge of a POSITA.
4. Eguchi in view of one or more of Ikeda ’209, Evans, or Morehouse.
5. Kubota in view of one or more of Ikeda ’209, Evans, or Morehouse.

Any of the foregoing combinations would render the asserted claims of the ’186 Patent obvious at least because they (1) demonstrate nothing more than a combination of prior art elements according to known methods to yield predictable results, (2) they apply known techniques (*e.g.*, accessing a user account) to known devices, methods, or products ready for improvement (*e.g.*, zone-based, passive, two-way door unlocking or engine starting) to yield predictable results, or (3) are nothing more than predictable variations of known work in one field of endeavor (e.g., zone-based, passive, two-way door unlocking or engine starting) based on design incentives or other market forces (proliferation of smart phones in the market capable of carrying out the same zone-based, passive, two-way door unlocking or engine starting using the same communications protocols and technology (e.g., RFID and/or Bluetooth®).

E. Regarding the ’786 Patent

Each of the references cited in the Exhibit D tables are analogous prior art because they are directed to the same or similar fields and aim to solve the same or similar problems. For example, all of the prior art references cited in the Exhibit D charts are directed to vehicles and their systems, networks, and components, and each reference discloses enhancements to an automobile user, operator, and vehicle owner’s interactions, experience, and control of the