

May 24, 2016

VIA ELECTRONIC DELIVERY

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Room TWA325
Washington, DC 20554

Re: *Ex Parte Notice*
ET Docket No. 13-49, Revision of Part 15 of the Commission's Rules to Permit
Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band

Dear Ms. Dortch:

On May 20, 2016, the individuals listed below, representing their companies and the Alliance of Automobile Manufacturers (“Alliance”), the Association of Global Automakers (“Global Automakers”), DENSO International America, Inc. (“DENSO”), Cisco Systems, Inc. (“Cisco”), and Intelligent Transportation Society of America (“ITS America”), met with David Simpson, David Furth, Ken Carlberg, and Rasoul Safavian from the Commission’s Public Safety and Homeland Security Bureau.

During the meeting, we discussed how safety-of-life Dedicated Short Range Communications (“DSRC”) is now poised for widespread deployment after years of development and testing. For example, General Motors (“GM”), an Alliance member, will deploy DSRC devices based on the Commission’s existing DSRC rules, including the existing DSRC channelization requirement, in the Model Year 2017 Cadillac CTS.¹ Such vehicles will be equipped with FCC-compliant DSRC radios and available for purchase during calendar year 2016 – well in advance of the National Highway Traffic Safety Administration’s (“NHTSA”) anticipated mandate that all new light duty vehicles include DSRC devices.² Meanwhile, four years have now passed since the first U.S. DSRC vehicle-to-vehicle (“V2V”) and vehicle-to-

¹ See Press Release, GM, Cadillac to Introduce Advanced ‘Intelligent and Connected’ Vehicle Technologies on Select 2017 Models (Sept. 7, 2014), <http://bit.ly/1SO5UMR>.

² See, e.g., NHTSA, Vehicle-to-Vehicle Communications: Readiness of V2V Technology for Application (2014), available at <http://www.nhtsa.gov/staticfiles/rulemaking/pdf/V2V/Readiness-of-V2V-Technology-for-Application-812014.pdf> (last visited May 24, 2016).

infrastructure (“V2I”) safety system pilot deployment was launched in Ann Arbor, Michigan.³ This model deployment included approximately 3,000 DSRC-equipped vehicles and 30 roadside infrastructure units, covered more than 73 lane-miles, and was praised by the U.S. Department of Transportation (“DOT”) as contributing “significant research value.”⁴

We also explained that DSRC needs interference-free access to all 75 MHz of the licensed 5.9 GHz DSRC spectrum. The Commission’s DSRC policy framework recognizes three classes of DSRC services: (1) safety-of-life service; (2) public safety service; and (3) non-public safety service.⁵ The first **two** of these categories include applications that directly impact the safety of the traveling public, including:

- Collision warnings and controls;
- Vulnerable road user (*e.g.*, pedestrian and construction worker) safety;
- Cooperative adaptive cruise control and platooning;
- Red-light violation warning;
- Curve speed warning;
- Emergency vehicle alert;
- Signal preemption; and
- Cooperative merging.⁶

Most of these safety applications will use channels other than DSRC Channel 172, which is currently set aside for Basic Safety Message (“BSM”) communications.⁷

In fact, during the next few months, there will be several safety-related DSRC V2I deployments in the U.S. that use DSRC channels other than the exclusive BSM Channel 172. For example, the DOT’s Connected Vehicle Pilot Deployments have begun along the New York State Thruway, along Interstate 80 in Wyoming (truck platooning), and in and around reversible freeway lanes in Tampa, Florida.⁸ Additional V2I deployments are being finalized for other

³ See U.S. Department of Transportation, Research Data Exchange Release 2.3: Safety Pilot Model Deployment Data, <http://www.its.dot.gov/factsheets/pdf/SafetyPilotModelDeployment.pdf>.

⁴ See *id.*

⁵ See, *e.g.*, *Amendment of the Commission’s Rules Regarding Dedicated Short-Range Communication Services in the 5.850-5.925 GHz Band (5.9 GHz Band)*, Report and Order, 19 FCC Rcd 2458 ¶¶ 32-34 (2003) (recognizing three classes of DSRC service for the purpose of determining communication priority among DSRC services in the 5.9 GHz band).

⁶ See also, *e.g.*, U.S. Department of Transportation, Connected Vehicle Applications: Safety, *available at* <http://ntl.bts.gov/lib/56000/56200/56237/FHWA-JPO-16-241.pdf> (last visited Apr. 7, 2016) (describing 14 different V2V applications, 14 different V2I applications, and a V2P application).

⁷ See 47 C.F.R. § 90.377.

⁸ See U.S. Department of Transportation, CV Pilot Deployment Program, <http://www.its.dot.gov/pilots/> (last visited May 24, 2016).

parts of the country. Some of these deployments will be supported by federal transportation funding provided through the Fixing America's Surface Transportation ("FAST") Act of 2015,⁹ while others will be supported by state transportation funding. At the same time, the Society of Automotive Engineers ("SAE") International standards-setting process for vehicle-to-pedestrian ("V2P") operations on Channel 176 is well underway and close to completion, and a DSRC pedestrian protection deployment will be launched in Lower Manhattan, New York City next year. These developments are in addition to the anticipated NHTSA Channel 172 BSM mandate, which is expected to be included in a notice of proposed rulemaking ("NPRM") that is released later this year.

We also reiterated that the automobile industry is not opposed to sharing the 5.9 GHz band with unlicensed Wi-Fi operations as long as such sharing will not cause interference to DSRC or squander the significant investment, research, and testing that has already occurred.¹⁰ The FCC's rules have channelized DSRC into seven 10 MHz channels since 2003,¹¹ yet the Rechannelization Concept calls for changing the channelization for the lower 40 MHz of the DSRC band from 10 MHz to 20 MHz channels.¹² This would require new efficacy testing and run counter to the conclusion of studies already completed, which show the superiority of 10 MHz channels for latency-sensitive DSRC applications.¹³ Moreover, under the Commission's rules, the most latency-sensitive safety communications (*e.g.*, BSMs) must ride over DSRC Channel 172.¹⁴ If the Rechannelization Concept were adopted, these operations would have to move to DSRC Channels 180 or 182, which are located much closer in the spectrum band to higher-powered DSRC public safety operations in DSRC Channel 184 and to potentially problematic commercial satellite operations (located above DSRC Channel 184).¹⁵ A new round of interference and reliability testing would have to occur in view of the new radiofrequency environment, which would further slow the deployment of DSRC and force the U.S. to lag further behind other nations in DSRC deployment.

⁹ See Pub. Law No. 114-94 (signed Dec. 4, 2015).

¹⁰ See, *e.g.*, Letter from Ari Q. Fitzgerald, Counsel, the Alliance, *et al.*, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 13-49, at 1 (filed Dec. 22, 2015).

¹¹ See *Amendment of the Commission's Rules Regarding Dedicated Short-Range Communications Services in the 5.850-5.925 GHz Band (5.9 GHz Band) et al.*, Report and Order, 18 FCC Rcd 19954 ¶¶ 25-29 (2003); 47 C.F.R. § 90.377.

¹² See, *e.g.*, Qualcomm, Proposal for DSRC Band Coexistence, at 12 (Oct. 11, 2013), available at <http://bit.ly/1NbSXuy> ("*Qualcomm Proposal*").

¹³ See, *e.g.*, DOT, Dedicated Short Range Communications, http://www.its.dot.gov/DSRC/dsrc_faq.htm (last visited May 23, 2016) (explaining that using 10 MHz channels for DSRC "brings better wireless channel propagation with respect to multi-path delay spread and Doppler effects caused by high mobility and roadway environments").

¹⁴ Channel 172 is located at the lower end of the DSRC band, which is where unlicensed Wi-Fi would operate under the Rechannelization Concept. See *Qualcomm Proposal*.

¹⁵ See *id.*

The representatives who attended the meeting on behalf of the Alliance, Global Automakers, DENSO, Cisco, and ITS America were:

Will Otero, the Alliance
Mike Cammisa, Global Automakers
David Thomas, Global Automakers
Hannah Izon, Global Automakers
John Kenney, Toyota
Sue Bai, Honda
Terry Helgesen, DENSO
Brian Gallagher, DENSO (by telephone)
Mary Brown, Cisco
Steven Bayless, ITS America
Jamie Barnett, Counsel to Global Automakers (by telephone)
Ari Fitzgerald, Counsel to the Alliance

Pursuant to Section 1.1206(b) of the Commission's rules, an electronic copy of this letter is being filed for inclusion in the above-referenced docket.

Respectfully submitted,

/s/ Ari Q. Fitzgerald

Ari Q. Fitzgerald

Partner

Hogan Lovells US LLP

Counsel to the Alliance

Ari.Fitzgerald@hoganlovells.com

D 1+ 202 637 5423

cc: David Simpson
David Furth
Ken Carlberg
Rasoul Safavian