

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of
CERTAIN INFOTAINMENT SYSTEMS,
COMPONENTS THEREOF, AND
AUTOMOBILES CONTAINING SAME

Investigation No. 337-TA-XXXX

DOCKET NO. 3316

TEXAS INSTRUMENTS INCORPORATED’S RESPONSE TO THE COMMISSION’S
SOLICITATION OF COMMENTS RELATING TO THE PUBLIC INTEREST

Texas Instruments Incorporated (“TI”) respectfully submits this response to the Commission’s solicitation of comments concerning the public interest issues raised by the Complaint and the Section 210.8(b) Statement filed by Complainant Broadcom Corporation (“Broadcom”). *See* 83 Fed. Reg. 22,102 (May 11, 2018). Broadcom identified TI’s DRA750 Infotainment Applications Processor in its description of an allegedly infringing Navigation System Kit. *See* Compl. ¶ 80, Compl. Exh. 36.

TI is a supplier of a wide variety of components for infotainment systems. TI provides the industry’s broadest portfolio of scalable solutions for infotainment systems, including both analog and embedded processing solutions. TI is a U.S. company with its headquarters in Dallas, Texas. TI has made and continues to make substantial contributions to the U.S. economy through its domestic operations associated with semiconductor devices used in many of the articles threatened by a potential remedy in this case. TI—named a Top 100 Global Innovator (4th year), one of Forbes’ “America’s Best Employers,” one of Minority Engineer’s “Top 50 Employers” (6th consecutive year), one of CR Magazine’s “100 Best Corporate Citizens” (15th year), and one of Ethisphere Institute’s “World’s Most Ethical Companies” (11th consecutive year)—has over 12,000 employees in the U.S. and invested \$1.5 billion in R&D in 2017.¹

¹ http://www.ti.com/corp/docs/investor_relations/fact_sheet.html

Broadcom seeks to exclude a significant portion² of the U.S. automobile market, including over half of the hybrid car market.³ Broadcom's requested remedy would also deprive consumers of critical vehicle performance and safety technology. Broadcom acknowledges that infotainment systems enable automobile drivers to navigate and communicate, yet Broadcom claims that these critical functionalities have no relation to public health, safety, or welfare.

The accused infotainment systems improve the safe operation of modern vehicles, acting as the heart of a multitude of functions that save lives and promote public welfare. Furthermore, despite Broadcom's cursory mention of other infotainment system providers, the accused infotainment systems are not fungible with any suggested alternatives. Infotainment systems are custom designed for particular vehicles and must undergo rigorous testing; on average, it takes Toyota and its suppliers, 2-3 years to design and qualify a new infotainment system.

In addition to failing to acknowledge these critical public interest issues, Broadcom's Section 210.8(b) Statement fails to include any data or information regarding (1) the number of potentially excluded vehicles; (2) the market share of potentially excluded infotainment systems; (3) the technical fungibility of alleged alternative substitutes; or (4) the market capacity of alleged alternative suppliers. Given that Broadcom has only identified "some examples" of allegedly "representative" products, it is unclear exactly what or how many products might be affected by the requested remedies.⁴

² In 2017 Toyota held the third largest market share of U.S. automobiles, accounting for 13.2% of the total market. *See, e.g.*, http://www.wsj.com/mdc/public/page/2_3022-autosales.html

³ The Toyota Prius product line accounted for 40.8% of hybrid car sales in the U.S. from 2000 through 2016. *See* <http://www.hybridcars.com/americans-buy-their-four-millionth-hybrid-car/>. In 2014, the most recent year with publicly available market share data, Toyota's Prius accounted for 42.9% of all U.S. hybrid car sales, accompanied by Toyota's hybrid Camry (8.7%), and Toyota's hybrid Avalon (3.7%), giving Toyota a 55.4% market share of all U.S. hybrid car sales.

⁴ Broadcom has identified only examples of representative accused products. *See, e.g.*, Compl. ¶¶ 45, 102. For Toyota, Broadcom has identified the exemplary representative accused products as

In light of the potential severity of such remedies and Broadcom's failure to make any meaningful attempt to substantiate its allegations, the Commission should ensure that a full evidentiary record is developed by delegating authority to the ALJ to address the public interest.

1. Articles potentially subject to exclusion

Broadcom requests exclusion of infotainment systems. Infotainment systems are the central hub through which modern automobile operators access features that are critical to improving safety, as well as promoting general public welfare through safer driving. These features include collision avoidance, driving assistance in poor weather conditions, pedestrian detection and avoidance, traffic lane departure warnings, integrated backup camera, (mandated by NHTSA beginning in 2018), parking assistance, and navigation features. These systems deliver critical information to today's drivers through the infotainment system.

While infotainment systems also include functions related to entertainment, such as radio controls, Broadcom's characterization of these key safety-related devices as not implicating any significant public health, safety, or welfare concerns is incorrect. Infotainment systems play a central role in a multitude of safety features. These systems are critical to both public welfare and the U.S. economy; as NHTSA explains, the automated processes in infotainment systems "have created completely new possibilities for improving highway safety, increasing environmental benefits, expanding mobility, and creating new economic opportunities for jobs and investment."⁵

TI provides components that are the "brains" of the accused infotainment systems. TI's DRA750 Infotainment Applications Processor is a "system on a chip" (SoC) that directly

"Automobiles, such as the Prius." *Id.* Broadcom's generic identification of accused products potentially implicates all Toyota automobiles with infotainment systems, as well as any of Toyota's competitors whose vehicles include Panasonic infotainment systems or systems with Renesas or JRC components.

⁵ http://www.nhtsa.gov/staticfiles/rulemaking/pdf/Automated_Vehicles_Policy.pdf.

supports a wide range of features, such as Human-Machine interfaces, multimedia playback, radio, and navigation. TI designed its DRA750 SoC to meet the intense processing needs of the modern automobile infotainment system.

Broadcom's Section 210.8(b) Statement fails to acknowledge that it is seeking to exclude automobiles from the third largest auto supplier in the U.S. market and the number one supplier of U.S. hybrid cars. Broadcom also fails to note that it is seeking to exclude some of the most fuel-efficient, non-electric vehicles on America's roads, including the most fuel efficient compact car—the Toyota Prius c—and the most fuel efficient midsize car—the Toyota Prius Eco.⁶ As the Commission has previously found, fuel economy is a key public interest issue. *See Certain Automatic Crankpin Grinders, Inv. No. 337-TA-60, USITC Pub. 1022 at 20 (Dec. 1979)* (“The public as a whole has an interest in conserving fuel”).

2. Exclusion would result in an immediate shortfall that could not be filled by like or directly competitive articles in a commercially reasonable period

Broadcom's requested remedies would cause a sudden shortfall of such magnitude that it could not be filled quickly enough to avoid serious consumer harm. Infotainment system SoCs, such as TI's DRA750, are not fungible devices built to meet an industry defined standard of compatibility. Each chip supplier has developed its own approach to a very complex design challenge resulting in integrated circuits that, among other things, vary in architecture, components, size, functionality, and software capabilities. Consequently, TI's DRA750 SoC cannot be exchanged with a competitors' product without significant hardware and software adjustments to the infotainment system, and any replacement would require extensive testing.

In TI's experience, designing an infotainment system using a new and compatible SoC entails at least three major phases: 1) engineering build; 2) design validation; and 3) production validation, requiring installation and operation in the intended vehicle. This process takes, on

⁶ *See* <https://www.fueleconomy.gov/feg/best-worst.shtml>.

average, 2-3 years. Since the accused infotainment systems and their SoCs are not standardized, Broadcom's requested remedies would precipitate a multi-year redesign process.

3. Exclusion would significantly harm public health, safety, and welfare

The requested remedy would have a severe impact on consumers. Broadcom has presented no substantive evidence that the potential shortfall could be filled by substitute products and, even if there were substitutes, it would take 2-3 years before any substitute would be ready. Broadcom's requested remedy would exclude some of the most fuel efficient vehicles in the U.S., including more than half of the hybrid car market, and preclude consumers from acquiring highly desired safety-related features that improve public welfare by promoting safer driving. This combination of market shortage and a loss of safety features would significantly impact public health, safety, and welfare.

4. Public interest should be delegated to the ALJ

The value of patent enforcement for Broadcom, a company whose foreign parent was recently prevented from acquiring a major U.S.-based competitor due to national security concerns,⁷ does not outweigh the adverse impact to the public of an exclusion order that would encompass many of the most fuel efficient vehicles currently available as well as infotainment systems that actively promote public safety. TI therefore respectfully requests that the Commission order the ALJ to take evidence and hear arguments related to the public interest.

Date: 21 May 2018

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⁷ <https://www.whitehouse.gov/presidential-actions/presidential-order-regarding-proposed-takeover-qualcomm-incorporated-broadcom-limited/>

CERTIFICATE OF SERVICE

I, Britnee M. Reamy, certify that on May 21, 2018, copies of the foregoing were delivered, pursuant to Commission regulations, to the following interested parties as indicated:

The Honorable Lisa Barton Secretary to the Commission U.S. INTERNATIONAL TRADE COMMISSION 500 E Street, SW Washington, DC 20436	<i>Via</i> EDIS and hand delivery (8 copies)
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/s/ Britnee M. Reamy
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*Counsel for Texas Instruments
Incorporated*