

**PUBLIC VERSION**

**UNITED STATES INTERNATIONAL TRADE COMMISSION  
Washington, D.C.**

**In the Matter of**

**CERTAIN SOLID STATE STORAGE  
DRIVES, STACKED ELECTRONICS  
COMPONENTS, AND PRODUCTS  
CONTAINING SAME**

**Investigation No. 337-TA-1097**

**COMMISSION OPINION**

On May 11, 2018, the presiding administrative law judge (“ALJ”) issued an initial determination (“ID”), finding that complainant BiTMICRO, LLC (“BiTMICRO”) has satisfied the economic prong of the domestic industry requirement through the domestic activity of its licensee BiTMICRO Networks, Inc. (“BNI”) with respect to U.S. Patent Nos. 7,826,243 (“the ’243 patent”), 8,093,103 (“the ’103 patent”), and 6,529,416 (“the ’416 patent”), but not with respect to U.S. Patent No. 9,135,190 (“the ’190 patent”). On June 12, 2018, the Commission determined to review the ID.

Having considered the ID, and the submissions of the parties, the Commission has determined to affirm with modified reasoning the ID’s conclusion that BiTMICRO has satisfied the economic prong of the domestic industry requirement with respect to the ’243, the ’103, and the ’416 patents, but not with respect to the ’190 patent. Accordingly, the investigation is terminated with a finding of no violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, with respect to the ’190 patent.

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### I. BACKGROUND

#### A. Procedural Background

The Commission instituted this investigation on January 26, 2018, based on a complaint filed by BiTMICRO of Reston, Virginia. 83 *Fed. Reg.* 3771 (Jan. 26, 2018). The complaint, as amended, alleges violations of section 337 based upon the importation into the United States, the sale for importation, and the sale within the United States after importation of certain solid state storage drives, stacked electronics components, and products containing the same by reason of infringement of one or more of claims 1, 2, 11, and 12 of the '243 patent; claims 1-20 of the '416 patent; claims 1-101 of the '190 patent; and claims 12 and 16 of the '103 patent. *Id.* The complaint also alleges that an industry in the United States exists as required by 19 U.S.C. § 1337(a)(2). *Id.*

The notice of investigation named as respondents Samsung Electronics Co., Ltd. of Gyeonggi-do, Republic of Korea; Samsung Semiconductor, Inc. of San Jose, California; Samsung Electronics America, Inc. of Ridgefield Park, New Jersey; SK Hynix Inc. of Gyeonggido, Republic of Korea; SK Hynix America Inc. of San Jose, California; Dell Inc. of Round Rock, Texas; Dell Technologies Inc. of Round Rock, Texas; Lenovo Group Ltd. of Beijing, China; Lenovo (United States) Inc. of Morrisville, North Carolina; HP Inc. of Palo Alto, California; Hewlett Packard Enterprise Co. of Palo Alto, California; ASUSTeK Computer Inc. of Taipei, Taiwan; ASUS Computer International of Fremont, California; Acer Inc. of New Taipei City, Taiwan; Acer America Corp. of San Jose, California; VAIO Corporation of Azumino, Japan; and Transcosmos America Inc. of Gardena, California. *Id.* at 3772. The Office of Unfair Import Investigations ("OUII") is also a party to the investigation. *Id.*

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The notice of investigation directed the presiding ALJ to conduct an early hearing and to issue an early decision on whether BiTMICRO has satisfied the economic prong of the domestic industry requirement. *Id.* at 3771. In more detail, the notice stated:

Notwithstanding any Commission Rules that would otherwise apply, the presiding Administrative Law Judge shall hold an early evidentiary hearing, find facts, and issue an early decision, as to whether the complainant has satisfied the economic prong of the domestic industry requirement. Any such decision shall be in the form of an initial determination (ID). Petitions for review of such an ID shall be due five calendar days after service of the ID; any replies shall be due three business days after service of a petition. The ID will become the Commission's final determination 30 days after the date of service of the ID unless the Commission determines to review the ID. Any such review will be conducted in accordance with Commission Rules 210.43, 210.44, and 210.45, 19 CFR 210.43, 210.44, and 210.45. The Commission expects the issuance of an early ID relating to the economic prong of the domestic industry requirement within 100 days of institution, except that the presiding ALJ may grant a limited extension of the ID for good cause shown. The issuance of an early ID finding that complainant does not satisfy the economic prong of the domestic industry requirement shall stay the investigation unless the Commission orders otherwise; any other decision shall not stay the investigation or delay the issuance of a final ID covering the other issues of the investigation

*Id.*

On March 1, 2018, the ALJ requested BiTMICRO to file supplemental domestic industry contentions stating the amount of any investments related to engineering, research and development, which may qualify under subsection 337(a)(3)(C). *See* Order No. 5 at 1 (Mar. 1, 2018). The ALJ also requested the parties to include in their pre-hearing briefs a detailed discussion on the question of whether and under what circumstances investments in engineering, research and development may qualify under subsections 337(a)(3)(A) and (B) rather than subsection 337(a)(3)(C). *Id.* at 2. The parties filed their pre-hearing briefs on March 13, 2018.

The ALJ held an evidentiary hearing on the economic prong of the domestic industry requirement on March 22, 2018, and thereafter received post-hearing briefing from the parties. On May 11, 2018, the ALJ issued the subject ID finding that BiTMICRO has satisfied the

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economic prong of the domestic industry requirement through the domestic activity of its licensee BNI with respect to the '243 patent, the '103 patent, and the '416 patent, but not with respect to the '190 patent. On May 21, 2018, all parties, including OUII, filed petitions for review of the ID.<sup>1</sup> On May 24, 2018, the parties filed replies to the others' petitions.<sup>2</sup>

### **B. Domestic Industry Products**

For each of the asserted patents, BiTMICRO claimed the existence of a domestic industry under subsections 337(a)(3)(A), (B), and (C) based on the domestic activities of its licensee BNI.<sup>3</sup>

BiTMICRO alleged that BNI's investments in the Altima I solid state drive ("SSD") demonstrate the existence of a domestic industry with respect to the '243, the '103, and the '416 patents. Specifically, BNI designed, developed, manufactured, and supported its Altima I drives in its Fremont, California headquarters, with certain stages of the manufacturing process undertaken in California and Alabama by four U.S. contract manufacturers. CPHB<sup>4</sup> at 2-3. BNI

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<sup>1</sup> Complainant BiTMICRO, LLC's Petition for Review, EDIS Doc ID 645619 (May 21, 2018) ("CPet"); Respondents' Limited Petition for Commission Review of Initial Determination Finding Satisfaction of Economic Prong for the '243 Patent, '416 Patent, and '103 Patent, EDIS Doc ID 645612 (May 21, 2018) ("RPet"); Petition of the Office of Unfair Import Investigations for Review in Part of the Initial Determination on Violation, EDIS Doc ID 645545 (May 21, 2018) ("IAPet").

<sup>2</sup> Complainant BiTMICRO, LLC's Response to Respondents' and the Office of Unfair Import Investigations' Petitions for Review, EDIS Doc ID 645866 (May 24, 2018) ("CReply"); Respondents' Response to Complainant BiTMICRO, LLC's and Staff's Petition for Review, EDIS Doc ID 645921 (May 24, 2018) ("RReply"); Response of the Office of Unfair Import Investigations to the Private Parties' Petitions for Review of the Initial Determination on Violation, EDIS Doc ID 645909 (May 24, 2018) ("IAReply").

<sup>3</sup> As discussed above, BiTMICRO's contentions with respect to subsection (C) were filed in response to Order No. 5.

<sup>4</sup> Complainant BiTMICRO, LLC's Post-Hearing Brief, EDIS Doc ID 640899 (Apr. 3, 2018).

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sold the U.S.-manufactured Altima I products to government sub-contractors, including BNI's largest customer, [REDACTED] for between [REDACTED] each. *Id.* at 2-3, 16. From May 2014 through December 2017, BNI manufactured and assembled more than [REDACTED] Altima I products in the United States, with a total sales value of more than [REDACTED]. *Id.* at 3 (citing CX-0864C at Q37-49). These U.S.-manufactured Altima I products represented the majority of BNI's U.S. sales by revenue and quantity. *Id.*

BNI also produced "less rugged" Altima I products at its wholly-owned subsidiary, BiTMICRO Networks International, Inc. ("BNII"), in the Philippines. *Id.* at 3. The BNII-manufactured Altima I products were sold with prices ranging from [REDACTED] generally to "non-military customers with less rigid specifications for use in less demanding industrial applications." *Id.* (citing CX-0864C at Q36). From May 2014 through December 2017, BNII produced [REDACTED] less rugged Altima I products, with a total sales value of less than [REDACTED]. *Id.* at 3-4 (citing CX-0864C at Q50-66).

BiTMICRO also alleged that BNI's investments in the ACE II drive demonstrate the existence of a domestic industry with respect to the '190 patent. The ACE II is a new SSD product that is in the early stages of commercialization. CX-0865C at Q31. Although the ACE II is manufactured, assembled, and tested entirely at BNII in the Philippines, BiTMICRO alleged that "the principal project management and production integration activities take place in the United States." *Id.* at Q32. BNII has produced about [REDACTED] of the ACE II product but, as of March 2018, [REDACTED]. *See id.* at Q31; ID at 28 n.22.

## II. ANALYSIS

Because the ID misinterprets the text and legislative history of subsections 337(a)(3)(A) and (B), as well as our precedent, we vacate the ID's analysis and conclusion that subsections 337(a)(3)(A) and (B) "covered only manufacturing" activities and "require 'exploitation' of the

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patent.” ID at 16. While the Commission bases its determination on different reasoning from that of the ID, we nonetheless affirm that BiTMICRO has satisfied the economic prong of the domestic industry requirement with respect to the ’243, the ’103, and the ’416 patents, but not with respect to the ’190 patent.

### A. The ID’s interpretation of subsections 337(a)(3)(A) and (B)

For each of the asserted patents, BiTMICRO relied at least in part on the domestic engineering, and research and development activities of its licensee, BNI, to demonstrate the existence of a domestic industry under subsections 337(a)(3)(A) and (B). ID at 6. BNI’s domestic engineering activities included “customer integration and sustaining engineering activities,” “customer service engineering activities,” “warranty and repair work,” “testing of replacement parts,” and “preparation of responses to statement of work (“SOW”) requests.” *Id.* at 7, 8, 13.

In view of its interpretation of the legislative history and past Commission decisions, the ID concludes that BNI’s investments in “non-manufacturing activities,” including engineering, and research and development activities related to the domestic industry products, cannot support a finding of domestic industry under subsections (A) and (B).<sup>5</sup> *See id.* at 28. According to the ID, “[b]efore Congress enacted section 337(a)(3) in 1974 [sic], the Commission required under section 337 that ‘the patent must be *exploited by production* in the United States.’” *Id.* at 15 (citing *Schaper Mfg. Co. v. Int’l Trade Comm’n*, 717 F.2d 1368, 1372 (Fed. Cir. 1983) (quoting H. Rep. No. 93-571 (1973)) (emphasis added)). The ID thus explains that “when [Congress]

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<sup>5</sup> The ID acknowledges certain exceptions to its general rule, however. For example, the ID finds that Commission precedent recognizes that warranty and repair work, and technical customer service are “sufficiently related” to manufacturing to support a domestic industry under subsections (A) and (B). *See* ID at 16 n.12. In addition, the ID notes that engineering activities “integral” to manufacturing can presumably support a domestic industry under subsections (A) and (B). *See id.* at 18 n.15.

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added subsection (C), [it] understood that subsections (A) and (B) covered only manufacturing.” *Id.* at 16. The ID also explains that “Congress understood subsections (A) and (B) to require ‘exploitation’ of the patent” “through manufacturing, while [subsection] (C) requires exploitation through engineering, R&D, or licensing.” *Id.*

Because the ID misinterprets the text and legislative history of subsections 337(a)(3)(A) and (B), as well as our precedent, we vacate the ID’s analysis and conclusion that subsections 337(a)(3)(A) and (B) “covered only manufacturing” activities and “require ‘exploitation’ of the patent.” *Id.* In particular, the Commission vacates the ID’s analyses in Section II(A) and on page 28, its analysis in footnote 12 on page 16, and its analysis in footnote 15 and the accompanying discussion on page 18 of the ID.

### **i. The statutory text and legislative history of section 337(a)(3)**

In patent proceedings under section 337, a complainant must establish that an industry “relating to the articles protected by the patent . . . exists or is in the process of being established” in the United States. 19 U.S.C. § 1337(a)(2). Under Commission precedent, the domestic industry requirement of section 337 consists of an “economic prong” and a “technical prong.” *See, e.g., Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1375 (Fed. Cir. 2003).

The “economic prong” of the domestic industry requirement is satisfied when it is determined that the economic activities and investments set forth in subsections (A), (B), and/or (C) of section 337(a)(3) have taken place or are taking place. *Certain Variable Speed Wind Turbines & Components Thereof*, Inv. No. 337-TA-376, USITC Pub. No. 3003, Comm’n Op. at 21 (Nov. 1996) (“*Wind Turbines*”). With respect to the “economic prong,” 19 U.S.C. § 1337(a)(3) provides that:

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[A]n industry in the United States shall be considered to exist if there is in the United States, with respect to the articles protected by the patent, copyright, trademark, mask work, or design concerned—

- (A) significant investment in plant and equipment;
- (B) significant employment of labor or capital; or
- (C) substantial investment in its exploitation, including engineering, research and development, or licensing.

Given that these criteria are listed in the disjunctive, satisfaction of any one of them will be sufficient to meet the domestic industry requirement. *Wind Turbines*, Inv. No. 337-TA-376, Comm’n Op. at 15.

The statutory text of section 337 does not limit sections 337(a)(3)(A) and (B) to investments related to manufacturing or any other type of industry. It only requires that the domestic investments in plant and equipment, and employment of labor or capital be “with respect to the articles protected by the patent.” 19 U.S.C. § 1337(a)(3). Moreover, even though subsection (C) expressly identifies “engineering” and “research and development” as exemplary investments in the “exploitation” of the patent, that language does not unambiguously narrow subsections (A) and (B) to exclude those same types of investments. 19 U.S.C. § 1337(a)(3)(C).

Sections 337(a)(3)(A)-(C) were added to the statute as part of the Omnibus Trade and Competitiveness Act of 1988. Pub. L. No. 100-418, 102 Stat. 1107 (1988) (“1988 Act”). An examination of the legislative history of the 1988 Act shows no intent to narrow subsections (A) and (B) to manufacturing activities. Rather, the legislative history reveals an intent to read sections 337(a)(3)(A)-(C) broadly. *See* H. Rep. No. 100-40, at 22 (1987) (noting that the “domestic industry requirement is retained with an expanded definition”). Specifically, the 1987 House Committee report that accompanied the 1988 Act makes clear that section 337(a)(3) was enacted to address a concern that certain prior Commission decisions had interpreted the



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domestic industry requirement in an “inconsistent and unduly narrow manner.”<sup>6</sup> *Id.* at 157. To address this, Congress provided a “definition” in order to “clarify the [domestic] industry standard.”<sup>7</sup> *Id.* The Committee report states that the definition includes three “factors” (which correspond to subsections (A)-(C) in the statute). Those factors identified by the report are:

1. significant investment in plant and equipment;
2. significant employment of labor or capital; or
3. substantial investment in the exploitation of the intellectual property right including engineering, research and development or licensing.

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<sup>6</sup> Prior to the 1988 Act, the Commission did not always apply its domestic industry test consistently. For example, in *Certain Airtight Cast-Iron Stoves*, Inv. No. 337-TA-69 (“*Cast-Iron Stoves*”), the Commission did not limit qualifying investments to those related to only manufacturing. USITC Pub. 1126, Comm’n Op. at 9 (Jan. 1981) (“It is clear that Congress distinguished between ‘industry’ and ‘manufacturer’ when it adopted the Tariff Act of 1930” because it could have specified “domestic manufacturers,” but it decided to require a “domestic industry.”). In that case, even though the stoves were imported from Norway, the Commission found “the relative importance of value added domestically” by the extensive “importer-distributor-dealer network” in the United States, including the employment of domestic labor and the use of domestic shipping and servicing facilities, were sufficient to find the existence of a domestic industry. *Id.* at 11; see also *Certain Inclined-Field Acceleration Tubes and Components Thereof*, Inv. No. 337-TA-67, USITC Pub. 1119, Comm’n Op. at 17 (Dec. 1980) (qualifying investments included labor and facilities expenditures related to research and development); *Certain Cube Puzzles*, Inv. No. 337-TA-112, USITC Pub. 1334, Comm’n Op. at 27-29 (Jan. 1983) (finding complainant’s employment of up to 200 people in Newark, New Jersey, in an operation which included quality control, repair, creation of molds and instruction sheets, and design collectively added significant value to the puzzles that were imported from overseas); *Certain Personal Computers and Components Thereof*, Inv. No. 337-TA-140, USITC Pub. 1504, Comm’n Op. at 41 (Mar. 1984) (“There is no real dispute about what complainant Apple actually does in the United States. Research and development as well as engineering support for the products at issue are carried out by Apple in Cupertino, California.”). However, in *Certain Miniature, Battery-Operated, All Terrain, Wheeled Vehicles*, Inv. No. 337-TA-122, the Commission retreated from the broad definition of domestic industry in *Cast-Iron Stoves*, and found that complainants’ random quality control, advertising, and distribution expenses incurred on toys trucks manufactured and packaged for the complainants overseas were not “directly related to the production” of the toy trucks and, thus, insufficient to constitute a domestic industry. USITC Pub. 1300, Comm’n Op. at 9-11 (Oct. 1982), *aff’d Schaper*, 717 F.2d at 1373. The legislative history makes clear that Congress’s intent in amending section 337 in 1988 was to reject the “unduly narrow” view of domestic industry reflected in *Wheeled Vehicles*. See H. Rep. No. 99-581, at 112 (1986); H. Rep. No. 100-40, at 157.

<sup>7</sup> Prior to the 1988 Act, there was no definition in the statute as to what constitutes a domestic industry.

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*Id.* In so doing, the report explains that the first two factors “have been relied on in some Commission decisions finding that an industry does exist in the United States.” *Id.* The report then states that the third factor “goes beyond the ITC’s recent decisions in this area.” *Id.* Notably, the report next states that “[t]his definition does not require actual production of the article in the United States if it can be demonstrated that *significant investment* and activities of the type enumerated are taking place in the United States.” *Id.* (emphasis added). In other words, when clarifying that the “definition does not require actual production” in the United States, the report referred to the overall “definition” and not just the third factor. In addition, by using the phrase “significant investment,” which is language from the first factor, the report further suggests that it is not just the third factor that is free from an “actual production” requirement. Accordingly, the legislative history surrounding the enactment of section 337(a)(3) suggests that Congress did not intend to limit subsections (A) or (B) to manufacturing activities in the United States. *See* S. Rep. No. 100-71, at 127-129 (1987); H. Rep. No. 99-581, at 112 (1986).

### ii. Commission precedent interpreting subsections 337(a)(3)(A) and (B)

Since the 1988 Act, the Commission has permitted expenditures on plant and equipment and labor and capital employed in engineering, and research and development activities to support a domestic industry under subsections (A) and (B), so long as the asserted expenditures satisfy the plain language of the statutory text. For example, in *Certain Electronic Imaging Devices*, Inv. No. 337-TA-850, the Commission rejected respondents’ argument that “research and development investments should be considered under subsection 337(a)(3)(C) and not under subsection 337(a)(3)(B).” Comm’n Op. at 92 (Apr. 21, 2014). The Commission explained:

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The Commission has made no such requirements in the past. Indeed, in *Certain Ground Fault Circuit Interrupters*, the Commission gave credit to complainant [for] the salary paid to engineers who performed research and development as labor under subsection 337(a)(3)(B). Comm’n Op. at 79-80.

*Id.* at 92-93. Relying entirely on labor and capital expenditures in the areas of research and development and engineering, the Commission found there to be a “significant investment in labor and capital with respect to each of the asserted patents under subparagraph 337(a)(3)(B).”

*Id.* at 93; *see also id.* at 94; *Certain Wireless Communication Devices, Portable Music and Data Processing Devices, Computers and Components Thereof*, Inv. No. 337-TA-745 (“*Wireless Communication Devices*”), Comm’n Op. at 93-94 (Sep. 17, 2012) (complainant’s domestic “expenditures for creation of prototypes,” including software development, demonstrated the existence of a domestic industry under subsections (A) and (B)).

More recently, in 2017, in *Certain Digital Video Receivers and Hardware and Software Components Thereof*, Inv. No. 337-TA-1001 (“*Digital Video Receivers*”), the Commission “determined not to review the Final ID’s conclusion that [complainant] established the economic prong of the domestic industry requirement (through subsections (A), (B), and (C) (research and development)).” Comm’n Op. at 35 (Dec. 6, 2017). Specifically, the unreviewed portion of the Final ID in that investigation found that complainant’s “R&D expenses . . . are a significant investment in plant and equipment” and that complainant’s “R&D, engineering, and tech support expenses are a significant investment in labor.” *Digital Video Receivers*, Inv. No. 337-TA-1001, Final ID at 578, 580 (May 26, 2017). In fact, during the relevant time period, a majority of complainant’s investment in plant and equipment and employment of labor related to research and development for the domestic industry products. *See id.* at 577, 580.

Similarly, in *Certain Marine Sonar Imaging Devices, Including Downscan and Sidescan Devices, Products Containing the Same, and Components Thereof*, Inv. No. 337-TA-921

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(“*Marine Sonar Imaging*”), the Commission found that complainant’s investment in labor and capital, of which a majority of expenditures pertained to research and development and engineering, satisfied the economic prong of the domestic industry requirement under subsection (B).<sup>8</sup> Comm’n Op. at 58-59, 64 (Jan. 6, 2016). The Commission found that the complainant in that case “conducts the vast majority of its research and development in the United States.” *Id.* at 63-64. The Commission explained that the complainant’s “research and development investment includes the costs in labor, capital, and other expenses it takes to conceive and bring to market a marine sonar device, in addition to the costs of refining products that are in the market and updating the operating software so that the sonar units run optimally and provide the users with the best possible user experience.” *Id.* at 58 n.28.

The subject ID incorrectly states that the Commission in *Certain Optoelectronic Devices for Fiber Optic Communications*, Inv. No. 337-TA-860 (“*Optoelectronic Devices*”), distinguished between subsections (A) and (B), which pertain to “the production of articles protected by the patent,” and subsection (C), which pertains to “non-production related expenditures.” ID at 16. (citing *Optoelectronic Devices*, Inv. No. 337-TA-860, Comm’n Op. at 13-14, 20 (May 9, 2014)). On the contrary, the Commission merely summarized the parties’ arguments in that investigation before affirming the ALJ’s finding that the complainants had demonstrated the existence of a domestic industry based on substantial investments in the exploitation of the asserted patent in research and development under subsection (C).

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<sup>8</sup> The Commission found that the same R&D expenses “separately constitute[d]” a domestic industry under subsection (C). *Marine Sonar Imaging*, Comm’n Op. at 64, 66 (Jan. 6, 2016). In doing so, the Commission reversed the ID’s finding that R&D expenses could not be double counted under subsections (B) and (C). *Id.* The Commission took no position on whether complainant had satisfied the economic prong under subsection (A). *Id.* at 57.

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*Optoelectronic Devices*, Inv. No. 337-TA-860, Comm’n Op. at 13-15. The Commission did not reach the merits of complainants’ alternative argument under subsections (A) and (B). *Id.* at 15.

The Commission has not required complainants to show exploitation of the patented technology (as the concept is understood under subsection (C)) to satisfy subsections (A) and (B). For example, in *Certain Ground Fault Circuit Interrupters*, Inv. No. 337-TA-739 (“*Ground Fault Circuit*”), the Commission found complainant had satisfied the economic prong of the domestic industry requirement under subsections (A) and (B) based on the complainant’s investments in plant and equipment and employment of labor and capital associated with its engineering and research and development activities concerning the domestic industry products. Comm’n Op. at 80-81 (Jun. 8, 2012). In so doing, the Commission considered whether the plant and equipment expenses and the labor and capital expenses were attributable to the domestic industry products, rather than requiring the additional showing necessary for domestic investments under subsection (C) in the exploitation of the asserted patent, *i.e.*, a nexus between those expenses and the patented technology. *Id.*; *see also Wireless Communication Devices*, Inv. No. 337-TA-745, Comm’n Op. at 91-96.

Similarly, although the Commission found a domestic industry under subsections (B) and (C) in *Certain Electronic Imaging Devices*, *Marine Sonar Imaging*, and *Digital Video Receivers*, the economic prong analyses in those investigations did not require complainant to show a nexus between the investments and the asserted patent(s) in order to satisfy the requirements under subsection (B). *See Certain Electronic Imaging Devices*, Inv. No. 337-TA-850, Comm’n Op. at 92; *Marine Sonar Imaging*, Inv. No. 337-TA-921, Comm’n Op. at 58-64; *Digital Video Receivers*, Inv. No. 337-TA-1001, Final ID at 576-582. Rather, in those investigations, the Commission found that complainants had made the necessary showing that their labor costs were

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sufficiently “related to” the domestic industry products. *See, e.g., Marine Sonar Imaging*, Inv. No. 337-TA-921, Comm’n Op. at 60, 61. By contrast, before finding that the same R&D labor costs “separately constitute” a domestic industry under subsection (C) in *Marine Sonar Imaging*, the Commission explained that subsection (C) “additionally requires that the domestic investment constitute an exploitation of the asserted patent.” *Id.* at 64, 66.<sup>9</sup>

In short, we find that the text of the statute, the legislative history, and Commission precedent do not support narrowing subsections (A) and (B) to exclude non-manufacturing activities, such as investments in engineering and research and development. Rather, the guiding principle is whether the asserted expenditures satisfy the plain language of the statute.

### **B. BNI’s domestic activities related to Altima I**

The Commission affirms, with the modifications discussed below, the ID’s finding that BiTMICRO has satisfied the economic prong of the domestic industry requirement under subsections 337(a)(3)(A) and (B) with respect to the ’416, the ’243, and the ’103 patents. Because the Commission does not need to reach the issue of whether BiTMICRO has also satisfied the economic prong of the domestic industry requirement under subsection 337(a)(3)(C) with respect to these same patents, the Commission vacates that portion of the ID’s analysis found in footnote 21 on page 27.

BiTMICRO alleged that BNI’s domestic activities directed to the Altima I drive fall into two categories: (i) operations (manufacturing); and (ii) engineering (technical) activities. *See ID*

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<sup>9</sup> The subject ID states that a statutory interpretation of subsections (A) and (B) excluding non-manufacturing activities will prevent circumvention of “subsection (C)’s requirement to demonstrate that domestic activities must be closely related to the patented technology.” ID at 16-17 n. 13. Even if the Commission’s interpretation of these provisions had this result suggested by the ID, this does not justify importing subsection (C)’s explicit requirement to show that the investment is in the “exploitation” of the patent into subsections (A) and (B), where the “statutory language concerning exploitation of a patent does not appear.” *Ground Fault Circuit*, Inv. No. 337-TA-739, Comm’n Op. at 78.

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at 7; CX-0864C at Q77, 93, 131. The operations activities include assembly and manufacturing, product and sub-component quality control, troubleshooting, shipping, and customer support, including warranty and non-warranty repair. CX-0864C at Q93. The engineering activities include customer integration and sustaining engineering activities for its current and prospective customers, in addition to product development and quality control testing. *Id.* at Q77, 131.

**i. BNI's domestic plant and equipment expenses related to Altima I**

BiTMICRO claimed that the portion of the [REDACTED] square foot Fremont facility in which BNI's domestic activities related to the Altima I occur includes both a plant space dedicated solely to manufacturing Altima I drives and employee office space for performing engineering related activities.<sup>10</sup> *Id.* at Q20, 151-154; CX-0863C at Q50. In connection with both the plant space and the office space, BiTMICRO also claimed that BNI incurred fixed-asset equipment expenses for equipment dedicated to manufacturing, assembly, and quality control of the Altima I drive. CX-0863C at Q56-57.

BNI produces Altima I drives after importing "component kits" [REDACTED] and performing various assembly, testing, and "ruggedizing" steps to manufacture a final product at its Fremont facility. *Id.* at 7, 23 (citing CX-0864C at Q94-98). Of the [REDACTED] square foot Fremont facility, BiTMICRO claimed that [REDACTED] square feet is dedicated to Altima I manufacturing. *Id.* at 8. Therefore, BiTMICRO claimed that about [REDACTED] of BNI's total investment in plant and equipment is allocatable to manufacturing the Altima I drive, which

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<sup>10</sup> BNI shares the expenses in connection with the [REDACTED] square foot Fremont facility with a wholly owned subsidiary, NVXL Technologies, Inc. ("NVXL"), which makes an unrelated product. *Id.* at 8; CX-0864C at Q18-20.

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amounted to [REDACTED] from May 1, 2016 to April 30, 2017 (“FY 2017”), and [REDACTED] from May 1, 2017 to December 30, 2017 (“the Stub Year”).<sup>11</sup> *See id.* at 8-9; CX-0863C at Q52-53, 58.

In addition to manufacturing activities, BNI employees engaged in engineering activities related to Altima I in various office spaces at the Fremont facility. *ID* at 7. Based on the testimony of Mr. Uriarte, President and General Counsel of BNI, as to where the employees who performed such activities worked in the Fremont facility, BiTMICRO allocated [REDACTED] square feet of office space in FY 2017 and [REDACTED] square feet of office space in the Stub Year to these engineering activities. *See id.* at 9; CX-0863C at Q59-63.

Recognizing that only some of the work performed in the allocated office space was devoted to Altima I engineering activities, BiTMICRO further allocated the office space based on Mr. Uriarte’s estimate as to the amount of time spent in that space by the employees who allegedly worked on Altima I engineering activities. *ID* at 9; CX-0863C at Q67-69. Using this allocation methodology, Mr. Rosolowski, BiTMICRO’s accounting consultant, estimated that [REDACTED] of BNI’s plant and equipment expenses for the allocated office space was devoted to engineering activities for the Altima I drive in FY 2017, which amounted to [REDACTED]. *ID* at 9-10 (citing CX-0863C at Q73-74); CX-0863C at Q70-72. He also estimated that [REDACTED] of BNI’s plant and equipment expenses for the allocated office space were devoted to engineering activities for the Altima I drive in the Stub Year, which amounted to [REDACTED]. CX-0863C at Q73-75.

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<sup>11</sup> BNI’s fiscal year [REDACTED]

[REDACTED]. *Id.* The *ID* uses FY 2017, which began on [REDACTED] and ended on [REDACTED], as the measure of domestic industry expenditures because it is the most recent complete fiscal year proximate to the filing of the complaint and BiTMICRO has not identified any major change in BNI’s operations from previous years. *Id.* The Commission also includes BNI’s investments during the Stub Year in its domestic industry analysis since reliable data is available and it represents the most recent investments leading up to the filing of the complaint.



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In sum, with respect to subsection 337(a)(3)(A), BiTMICRO claimed plant and equipment expenses attributable to BNI's production of Altima I (Table 1, below), and plant and equipment expenses attributable to engineering related work on Altima I in BNI's employee office space (Table 2, below).

**Table 1**

	BNI's Total Plant Expenses	Allocation for Altima I Production	Altima I Plant Expenses	Altima I Equipment Expenses	Altima I Production Plant and Equipment Expenses
<b>FY 2017</b>	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
<b>Stub Year</b>	[REDACTED]	[REDACTED]	[REDACTED]	--	[REDACTED]

**Table 2**

	BNI's Total Plant Expenses	Allocation for BNI Office Space	Plant and Equipment Expenses for BNI Office Space	Allocation for Altima I Office Space	Plant and Equipment Expenses for Altima I Office Space
<b>FY 2017</b>	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
<b>Stub Year</b>	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

*Id.* at Q47, 58, 62, 66, 75; *see also* CX-0865C at Q46, 49, 83.

The Commission agrees that the record evidence supports the ID's finding that BNI's investments in its dedicated plant space (Table 1, above) are reliably allocated. ID at 25 (finding "over [REDACTED] in FY 2017 alone" invested in the Altima I manufacturing line).

Respondents argued that Mr. Uriarte's testimony that the [REDACTED] square foot plant space is dedicated solely to Altima I production and "is not used for anything else," CX-0864C at Q152, is contradicted by BNI employees who testified that this space is used to support at least [REDACTED] other products and research projects unrelated to the Altima I. RPet at 11. Respondents,

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however, identify no evidence that this alleged work necessarily occurred in FY 2017 or the Stub Year. *See* RX-0002C at 82:6-83:9 ([REDACTED] sometime during 2016 and [REDACTED] [REDACTED] sometime during 2014 or 2015), 84:1-17 ([REDACTED] around December 2017 to January”), 84:24-85:16 (using equipment in the lab for [REDACTED] [REDACTED] sometime in 2016), and 85:24-88:25 ([REDACTED] [REDACTED] [REDACTED], which is separate from BNI’s plant space for Altima D); RX-0001C at 65:11-15 (no timeframe specified for [REDACTED]).

Moreover, even if work was performed for products other than Altima I in the plant space, Mr. Uriarte testified repeatedly that any work there was “*de minimis*.” Tr. at 97:16-19, 97:20-25, 98:15-22, 99:11-14. As noted by BiTMICRO, the “Commission has recently credited the entirety of a complainant’s plant and equipment costs used to manufacture a domestic industry product, even though the same plant and equipment was also used to manufacture ‘modest amounts’ of a non-domestic industry product.” CReply at 12 (citing *Certain Magnetic Data Storage Tapes and Cartridges Containing the Same*, Inv. No. 337-TA-1012, Comm’n Op. at 114-115 (Mar. 8, 2018) (citing *Certain Biometric Scanning Devices, Components Thereof, Associated Software, & Prods. Containing the Same*, Inv. No. 337-TA-720, ID at 6-7 (Feb. 16, 2011), *unreviewed in relevant part*, (“[C]omplainant was required to invest in the space for each product regardless of whether the space is used to manufacture the other product.”))). Accordingly, we find that Respondents have not persuasively rebutted BiTMICRO’s evidence that the [ ] square foot plant space has been dedicated to work performed on the Altima I drive, especially during the most relevant time frame from the start of FY 2017.

The Commission disagrees with the ID's finding that BNI's investments directed to its employee office space (Table 2, above) are not reliably allocated. The ID questions Mr.

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Uriarte's ability to provide accurate square footage allocations for the office space where BNI performs the engineering activities for Altima I. ID at 21-23. The Commission, however, has reviewed the record and finds Mr. Uriarte's methodology for estimating the office space for engineering activities related to Altima I is reasonable and similar to his methodology for estimating the portion of total plant expenses attributable to the [REDACTED] square foot plant space. See CX-0864C at Q154.

Mr. Uriarte testified that he employed several steps to arrive at his square footage estimate for office space. *Id.* at Q155. In particular, Mr. Uriarte testified that he first determined which employees performed technical activities directed to the company's domestic industry products for each fiscal year since 2013. *Id.* Next, he used his "general recollection" of where each individual sat during the particular time period (in addition to including space for conference rooms) to make a "reasonable, good faith estimate" of the amount of office space and conference rooms that were dedicated to technical product activities during each fiscal year. *Id.* Mr. Uriarte's methodology is reasonable given that BNI [REDACTED] | [REDACTED]. *Id.* at Q156; RX-0006C at 140:12-15 ("And I remember where they sat, you know, during the -- during this time, who they were, and I did a, you know, good faith estimate as to who occupied what space."), 140:2-12 (Mr. Uriarte testifying that he had the office space measured and reviewed "who did what in terms of activities"), 158:5-162:19. His estimate was also corroborated with facility maps. RX-0089C to RX-0090C (facility maps).

According to Mr. Uriarte, work performed in the office space, unlike the dedicated plant space, was directed to both Altima I and other products. CX-0864C at Q157; CX-0863C at Q67. Therefore, Mr. Rosolowski and BiTMICRO's expert witness, Dr. Bazelon, approximated the

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amount of office space that BNI dedicated to Altima I based on Mr. Uriarte's estimate of the amount of time BNI's employees spent working on Altima I in the office space.<sup>12</sup> CX-826C; CX-0864C at Q79-83. For example, in FY 2017, BNI's U.S. employees who worked on engineering related activities spent approximately [ ] of their time on Altima I. CX-0863C at Q73 (citing CX-818C). Mr. Rosolowski thus calculated that the amount of BNI's total plant and equipment expenses that should be attributed to the office space for Altima I in FY 2017 is [ ], which represents [ ] of BNI's plant and equipment expenses in relevant allocated office space. *Id.* at Q74-75.

In sum, the Commission finds that BNI's plant and equipment expenses related to its dedicated plant space and to its employee office space for Altima I are reliably allocated. Thus, BNI's plant and equipment expenses attributable to Altima I totals [ ] for FY 2017 and [ ] for the Stub Year (sum of Tables 1 and 2, above). *Id.* at Q76.

### ii. BNI's domestic labor and capital expenses for Altima I

BiTMICRO claimed three different types of labor and capital expenditures to meet the criteria under subsection 337(a)(3)(B): (1) BNI's U.S. employees; (2) BNI's contract employees in the U.S.; and (3) BNI's payments to U.S. third-party contract manufacturers. *See ID* at 11.

BiTMICRO argued that Mr. Uriarte's time estimates may be used to reasonably allocate BNI's labor expenses related to its U.S. employees who contribute some portion of their time to product design engineering, development, manufacturing, assembly, quality control, and customer support for the Altima I product. *See CX-0864C* at Q79. Mr. Uriarte testified that the

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<sup>12</sup> In addition to questioning Mr. Uriarte's ability to provide accurate square footage allocations for the office space where BNI performs the engineering activities for Altima I, the ID also questions Mr. Uriarte's ability to estimate the amount of time BNI's employees spent working on the domestic industry products. *See ID* at 22-23. The latter credibility issue is addressed in our discussion of BNI's domestic labor and capital expenses for Altima I in the next section. *See infra* at 20-22.

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estimates of employee time were based on his intimate knowledge of the work being done at BNI and his experience as BNI's President and General Counsel, as well as his review of emails, calendar entries, and customer proposals and invoices. *Id.* at Q82; Tr. at 79:4-25. Mr. Uriarte further testified that he interviewed current BNI employees to verify his estimates. CX-0864C at Q82.

Respondents argued that the ID properly found Mr. Uriarte's employee time estimates "implausible" and "unreliable" because they were not corroborated. *See* RReply at 9. The Commission, however, finds Mr. Uriarte's time estimates were corroborated by other employees, as evidenced by both Mr. Uriarte's sworn testimony as well as the sworn testimony of other employees. *See* Tr. at 79:4-25; CX-0864C at Q82; RX-0003C (Nolasco Dep.) at 109:21-24. Other than averring that Mr. Uriarte's estimate of the amount of time BNI's employees spent working on Altima I is unreliable due to a lack of documentary corroboration, Respondents did not provide specific persuasive evidence showing that Mr. Uriarte's time estimates for Altima I are unreliable.

Moreover, there is no Commission requirement that sworn witness testimony directed to the domestic industry requirement cannot be credited without further corroboration by underlying documentation. *See, e.g., Certain Electronic Devices, Including Mobile Phones, Portable Music Players, and Computers*, Inv. No. 337-TA-701, Order No. 58, 2010 WL 5621540, at \*3 (Nov. 18, 2010) (rejecting argument contending that "sworn witness testimony" must be corroborated with "underlying documentation"), *not reviewed*, Notice (Dec. 20, 2010). Instead, all that is required is the use of reasonable allocations for the purposes of establishing the economic prong of the domestic industry requirement. *See, e.g., Certain NOR and NAND*

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*Flash Memory Devices and Products Containing Same*, Inv. No. 337-TA-560, Order No. 37, 2006 WL 3775919, at \*2 (Nov. 17, 2006), *not reviewed*, Notice (Dec. 8, 2006).

Respondents also argued that the ID properly disregarded Mr. Uriarte's time estimates because he improperly included non-qualifying activities such as certain administrative, sales and marketing costs as part of the domestic industry expenditures. *See* RReply at 6-7. The Commission, however, has stated that "[w]hile marketing and sales activity, alone, may not be sufficient to meet the domestic industry test, those activities may be considered as part of the overall evaluation of whether or not a Complainant meets the economic prong." *Certain Printing and Imaging Devices and Components Thereof*, Inv. No. 337-TA-690 ("*Printing and Imaging Devices*"), Order No. 24 at 34 (Apr. 21, 2010), *rev'd on other grounds*, Comm'n Op. at 30-31 (Feb. 17, 2011); S. Rep. No. 100-71, at 129 (1987). Nonetheless, Mr. Uriarte testified that his employee time allocations separated the amount of time spent by some employees on sales and marketing from the amount of time they spent on product production and support activities. CReply at 12-13 (citing Tr. (Uriarte) 82:22-83:2, 112:25-113:7 (testifying that the work BNI's employees perform is "not limited to their titles" and that his estimates "made sure sales and marketing activities . . . were never included. It was all technical activities.")). Moreover, the evidence shows that Ms. Nolasco, one of the employees who Respondents and the ID contend performs only sales-related activities, testified in detail about the technical work that she performed. *See* RX-0003C at 11:4-16, 15:3-9, 15:17-23, 16:1-5. Accordingly, Respondents have not persuasively rebutted BiTMICRO's evidence that Mr. Uriarte's allocation of BNI's labor expenses attributable to the Altima I drive is reasonable.

Respondents further argued that the ID's reliance on BiTMICRO's unapportioned third party expenses paid to contract employees and contract manufacturers cannot be reconciled with

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the reasoning in *Lelo Inc. v. Int'l Trade Comm'n*, 786 F.3d 879 (Fed. Cir. 2015), because “such payments do not reflect investments in plant and equipment or employment of labor or capital.” RPet at 12. The Federal Circuit in *Lelo* found that the purchase of “off-the-shelf” components from third-party U.S. suppliers “are insufficient to satisfy the ‘significant investment’ or ‘significant employment of labor or capital’ criteria of § 337 where there is an absence of evidence that connects the cost of the components to an increase of investment or employment in the United States.” *Lelo*, 786 F.3d at 884, 885.

The Commission agrees with the ID that BNI’s labor expenses for specialized portions of the Altima I production process that are handled by independent contract employees, in the United States, under contract to BNI, should be credited under subsection (B). ID at 24. Mr. Uriarte explained that the four contract employees all assisted in assembling Altima I drives:

The work each contractor does varies based on their individual skillsets. [REDACTED] is our most consistent contractor and he primarily does [REDACTED]. [REDACTED] He also [REDACTED] from time-to-time when the need arises. [REDACTED] was only with us for a brief amount of time. He was doing similar work as [REDACTED]. Our two other contractors, [REDACTED], handled certain [REDACTED] aspects of our E-Disk Altima I production.

CX-0864C at Q124. These contract employees were paid by the hour for the actual time they worked in providing the specialized services to BNI. *See id.* at Q123 (citing CX-350C, CX-354C through CX-362C). In *Certain Male Prophylactic Devices*, Inv. No. 337-TA-546 (“*Male Prophylactic*”), the Commission credited complainant’s payments for services performed by a subcontractor where the subcontractor provided an accounting of the number of hours its employees spent working on the relevant products, which permitted the Commission a basis to compute the magnitude of the employment of labor. Comm’n Op. at 41 (Aug. 1, 2007); *see also Lelo*, 786 F.3d at 884. Similarly, the Commission finds BNI’s payments to the contract

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employees for their hourly work reflect the magnitude of labor BNI expended to produce the Altima I drives.

The Commission also agrees with the ID that BNI's payments to third-party contract manufacturers should be credited under subsection (B). ID at 24. In contrast to the "retailer" suppliers in *Lelo*, who simply sold "off-the-shelf" components, the evidence shows that the third-party entities here are, in fact, contractors, who provide specialized services, and do not simply sell "off-the-shelf" products. *See id.* at 12 n.10; *Lelo*, 786 F.3d at 884.

Mr. Uriarte testified that all four third-party manufacturers are located in the United States and performed the specialized services in the United States. CX-0864C at Q127-128. First, BNI employed [REDACTED] to perform [REDACTED] and [REDACTED] of some of the electrical components, such as the [REDACTED], that is part of the Altima I drive. CPHB at 16; CX-0864C at Q98-99. BiTMICRO asserted that [REDACTED] did this work for BNI under contract in [REDACTED]. CPHB at 16 (citing CX-0864C at Q98-100). BiTMICRO provided the invoices and purchase orders for the specialized services performed by [REDACTED]. CX-0864C at Q100 (citing CX-086C to CX-089C; CX-250C to CX-275C). In particular, the purchase orders identify the materials, their quantity, unit price, and a description of the services performed. *Id.*

Second, BNI sent components kits to [REDACTED], to populate the bare circuit boards to turn the individual components into [REDACTED] printed circuit board subassemblies. *Id.* at Q101. BiTMICRO asserted that [REDACTED] does this work in [REDACTED] using components supplied by BNI. *Id.* at Q101-102. As with [REDACTED], BiTMICRO provided the invoices and purchase orders for the specialized services performed by [REDACTED]. *Id.* at Q103 (citing CX-43C, CX-64C to CX-75C, CX-



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914C, CX-938C). These corroborating documents show a breakdown of the materials by quantity and price, and labor costs for setup and engineering services. *See, e.g.*, CX-914C.002-003. Further, BiTMICRO provided a list of equipment [REDACTED] purchased and maintains at its facility in [REDACTED]. CX-0864C at Q104 (citing CX-447C). Still further, the record evidence includes photographs of the equipment [REDACTED] uses at its facility in [REDACTED] to perform BNI's requested services and photographs of where [REDACTED] stores the components kits that it incorporates into the printed circuit board assemblies. *Id.* at Q105 (citing CX-786C to CX-794C; CX-912C).

Third, BNI sends the printed circuit board subassemblies to a third contract manufacturer, [REDACTED], for [REDACTED]. *Id.* at Q109-110. BiTMICRO provided the invoices and purchase orders for the specialized services performed by [REDACTED]. *Id.* at Q111 (citing CX-42C; CX-76C to CX-085C; CX-198C to CX-206C; CX-208C to CX-249C). The purchase orders identify the materials, their quantity, unit price, and a description of the services performed. *Id.*

Finally, BNI brings fully assembled Altima I products to a fourth third-party contractor, [REDACTED], where BNI employees themselves perform [REDACTED] testing to ensure that each product meets the applicable standards and requirements set by BNI's customers. CPHB at 18 (citing CX-0864C at Q113-115). Again, BiTMICRO provided the invoices and purchase orders for the specialized services performed at [REDACTED]. CX-0864C at Q117 (citing CX-90C to CX-141C, CX-207C, CX-276C to CX-319C, CX-423C, CX-939C). These corroborating documents provide a description of the testing performed and show that [REDACTED] charges BNI by the hour for the use of its specialized equipment. *See, e.g.*, CX-207C; CX-0276C. Further, BiTMICRO provided photographs of the

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equipment [REDACTED] provides at its facility in [REDACTED] to perform the specialized services. CX-0864C at Q116 (citing CX-910C).

Respondents have not persuasively rebutted the record evidence discussed above showing that BNI's third-party contract manufacturers are located in the United States, and that their employees or BNI's employees performed specialized services to manufacture Altima I drives using equipment provided by the contract manufacturers. Moreover, consistent with *Lelo*, the record contains data indicating the labor and capital attributable to the services provided to BNI for work related to the Altima I drive. Thus, the record sufficiently supports a finding that these contract manufacturers made an investment in both labor and capital as a result of their agreements with BNI.

In sum, for FY 2017, Dr. Bazelon computed [REDACTED] in contract employee expense and [REDACTED] in payments to contract manufacturers for activities related to Altima I.<sup>13</sup> ID at 24 (citing CX-0863C at Q118, 123; CX-0865C at Q72). As for the Stub Year, Dr. Bazelon computed [REDACTED] in contract employee expense and [REDACTED] in payments to contract manufacturers for activities related to Altima I. CX-0865C at Q72. Using Mr. Uriarte's time allocations, Mr. Rosolowski calculated BNI's Altima I labor expenses for U.S. employees to be [REDACTED] in FY 2017 and [REDACTED] in the Stub Year. CX-0863C at Q112.

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<sup>13</sup> Mr. Rosolowski agreed with Dr. Bazelon that for FY 2017, BNI paid [REDACTED] to contract manufacturers but he calculated [REDACTED] in contract employee expense, which is slightly higher than Dr. Bazelon's calculation. CX-0863C at Q118. The ID relies on Dr. Bazelon's calculation. ID at 24.

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Table 3

	FY 2017	Stub Year
U.S. Employee Labor	[REDACTED]	[REDACTED]
Contract Employee Labor	[REDACTED]	[REDACTED]
Payments to Contract Manufacturers	[REDACTED]	[REDACTED]
TOTAL	[REDACTED]	[REDACTED]

CX-0863C at Q112-113, 117-118, 122-123; CX-0865C at Q72, 83.

**iii. BNI's significant domestic investments in Altima I**

Respondents argued that the record includes no sufficient quantitative evidence that could be used in a significance analysis. *See* RPet at 1, 5. Even with the exclusion of the evidence that the ID found unreliable, the ID found reliable quantitative evidence exists, such as 1) payments from BNI to its contract employees; (2) payments to the contracted third-party companies; and (3) plant expenses directed solely to the dedicated manufacturing space for the Altima I. And as discussed above, BNI's allocation of U.S. office space and BNI's allocation of U.S. employee labor expenses for technical work related to Altima I are reliable and they can be properly included in the domestic industry analysis.

The following table summarizes BNI's quantifiable domestic investments for Altima I:

Table 4

	FY 2017	Stub Year
Production Plant and Equipment Expenses	[REDACTED]	[REDACTED]
Office Space Plant and Equipment Expenses	[REDACTED]	[REDACTED]
TOTAL Subsection (A)	[REDACTED]	[REDACTED]

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Table 4 cont'd

	FY 2017	Stub Year
U.S. Employee Labor	[REDACTED]	[REDACTED]
Contract Employee Labor	[REDACTED]	[REDACTED]
Payments to Contract Manufacturers	[REDACTED]	[REDACTED]
<b>TOTAL Subsection (B)</b>	[REDACTED]	[REDACTED]

The ID acknowledges BiTMICRO's contextual analysis on significance, including BiTMICRO's allegations that "BNI's domestic investments in plant and equipment for its Altima I products since fiscal year 2015, 'by a very conservative measure, have varied between 22% and 24% of BNI's total unallocated U.S. plant and equipment expenses,'" that "BNI's domestic industry expenses in labor and capital for Altima I have varied between 13% and 29% of its total labor and capital expenses," and "that revenue from Altima I sales accounts for over [REDACTED] of BNI's total revenue." ID at 25. After summarizing BiTMICRO's contextual analysis on significance, the ID concludes that the "Altima I product was significant to BNI's domestic operations," even though it finds BiTMICRO's "numbers are greatly exaggerated." *Id.* The ID rejects the IA's value-added analysis because it includes non-qualifying investments and investments computed based on Mr. Uriarte's time estimates. *Id.* at 26-27. Nevertheless, the ID concludes that "[e]ven if the qualifying investments in this case amount to much less than BiTMICRO asserts, as I am convinced that they do, the nature of the activities engaged in by BNI demonstrates a sufficiently focused and concentrated effort such that, whatever the actual amount is, it would be sufficient." *Id.* at 27.

The Commission finds that the ID does not evaluate significance based on a proper contextual analysis in the relevant timeframe such as in context of BNI's operations, the

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marketplace, or the industry in question. *See* RPet at 7, 14, 16; IAPet at 3-4; *Lelo*, 786 F.3d at 883 (“The ITC . . . [has] found that the word ‘significant’ denote[s] ‘an assessment of the relative importance of the domestic activities.’”) (quoting *Certain Concealed Cabinet Hinges and Mounting Plates*, Inv. No. 337-TA-289, 1990 WL 10608981, at \*884-885, Comm’n Op. at 11 (Jan. 8, 1990) (“*Cabinet Hinges*”)). In *Certain Optoelectronic Devices*, the Commission stated the following regarding the context of a complainant’s domestic expenditures:

As we held in *Certain Printing and Imaging Devices*, whether investment activities are significant or substantial “is not evaluated according to any rigid mathematical formula,” but rather, “entails ‘an examination of the facts in each investigation, the article of commerce, and the realities of the marketplace.’” *Certain Printing and Imaging Devices and Components Thereof*, Inv. No. 337-TA-690, Comm’n Op. at 27 (Feb. 17, 2011) (“*Printing Devices*”) (quoting *Certain Male Prophylactic Devices*, Inv. No. 337-TA-546, Comm’n Op. at 39 (Aug. 1, 2007)). There are a number of factors and approaches taken by the Commission in making this determination. For example, comparing complainant’s domestic expenditures to its foreign expenditures is one of the possible factors that the Commission could but, contrary to Respondents’ argument, is not required to consider. *Id.* at 27-28. *Accord*, *Certain Encapsulated Integrated Circuit Devices and Products Containing Same*, Inv. No. 337-TA-501, Comm’n Op. at 33 (Apr. 4, 2014).

Inv. No 337-TA-860, Comm’n Op. at 18-19.

With respect to subsection 337(a)(3)(A), the Commission finds that the record demonstrates that BNI’s plant and equipment investments in the dedicated plant space and employee office space allocated to Altima I are significant in the context of BNI’s total plant and equipment expenditures during the relevant time frame. Since FY 2017, BNI’s domestic investments in plant and equipment for the Altima I represent approximately  of BNI’s total investments in plant and equipment for the Altima I and represent between 22% and 25% of BNI’s total unallocated domestic investments in plant and equipment. *See* CX-0865C at Q101; ID at 25. These figures show the relative importance of BNI’s plant and equipment expenditures as they are directly tied to the production and development of Altima I, which is BNI’s principal

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product and [REDACTED]. *See id.* at Q27. The Commission finds BNI's domestic investments in plant and equipment for the Altima I are significant especially given the fact "that revenue from Altima I sales accounts for over [REDACTED] of BNI's total revenue." ID at 25; *see* CPHB at 60; CX-0865C at Q27; RX-0131C at Q60.

As for subsection 337(a)(3)(B), the Commission finds that BiTMICRO has provided reliable data to assess the "value added" by BNI's domestic manufacturing and engineering labor and capital to the "components kit" imported from [REDACTED]. According to BiTMICRO, the aggregate value of the imported components incorporated into the Altima I products BNI sells to its customer, [REDACTED] before BNI's domestic assembly, manufacturing, and quality control efforts is less than [REDACTED] per unit. *See* CX-0864C at Q161; CX-0865C at Q91 (citing CX-0015C; CX-0063C). As shown in Table 4 above, BNI's investment in employment of labor and capital directed to the Altima I product during approximately the one and half year before the filing of the complaint amounted to [REDACTED]. BNI produced [REDACTED] Altima I units in FY 2017 and [REDACTED] Altima I units in the Stub Year in its Fremont facility. CX-0864C at Q66. On this basis, BNI invested approximately [REDACTED] per unit in domestic industry activities directed to the Altima I. Thus, BNI's domestic expenditures in labor and capital associated with the Altima I represent at least 41% added value over the approximate value of offshore components incorporated into those products since FY 2017.<sup>14</sup> The Commission finds BNI's investment in employment of labor and capital in the Altima I is also significant.

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<sup>14</sup> Because BiTMICRO's aggregate value [REDACTED] of the imported components received by BNI [REDACTED] did not clearly break down the plant and equipment costs from the labor and capital costs, the Commission assumes that the entire [REDACTED] is derived from [REDACTED] labor and capital for purposes of computing the value-added by BNI's investments in labor and capital under subsection 337(a)(3)(B).

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### C. BNI's domestic activities related to ACE II

The Commission affirms with modifications the ID's finding that BiTMICRO has not met its burden of showing a substantial or significant domestic industry with respect to the '190 patent. Even assuming that BNI's "domestic labor expense in product development and design allocated to the ACE II product [was] in excess of [REDACTED] since fiscal year 2017," CPet at 5, the Commission finds that BiTMICRO failed to present a proper contextual analysis to support its claim of a substantial or significant domestic industry with respect to the '190 patent. Moreover, BiTMICRO's failure to present a proper contextual analysis is fatal to its claim of a domestic industry with respect to the '190 patent regardless of whether that claim is made under subsection (A), (B), or (C).<sup>15</sup>

With respect to the '190 patent, BiTMICRO relied on licensee BNI's product development and engineering activities related to the ACE II product to satisfy the economic prong of the domestic industry requirement under section 337(a)(3)(A), (B), and (C). ID at 6, 28-29. Although the ACE II product is manufactured, assembled, and tested entirely overseas, BiTMICRO alleged that "the principal project management and production integration activities take place in the United States." CX-0865C at Q32. According to BiTMICRO,

At the Fremont Facility, BNI's engineering and operation departments performed product development and product design activities for its ACE II products. These activities included [REDACTED]

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<sup>15</sup> The ID also finds that BiTMICRO failed to demonstrate the required nexus between its engineering activities and the patented technology and failed to allocate BNI's activities with respect to ACE II to the patented technology. ID at 29. Neither of these failures, however, applies to BiTMICRO's claim of a domestic industry under subsections (A) and (B). Since we find that BiTMICRO did not meet its burden of proof in demonstrating a "substantial" or "significant" domestic industry with respect to the '190 patent, the Commission does not take a position on these issues specific to subsection (C).

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CX-0864C at Q194; *see also id.* at Q86.

Recognizing that only some of the work performed at the Fremont facility was devoted to ACE II activities, BiTMICRO allocated the space based on Mr. Uriarte's estimate as to the amount of time spent in that space by the employees who allegedly worked on ACE II activities. *See* CX-0863C at Q78. Using this allocation methodology, Mr. Rosolowski estimated the time BNI's U.S. employees spent working on ACE II related engineering and development activities amounted to approximately [REDACTED] in FY 2017 and grew to approximately [REDACTED] in the Stub Year. *See id.* at Q79; ID at 13-14. Thus, BNI's plant and equipment costs attributed to the ACE II product can be summarized as follows:

<b>TABLE 19: BNI's Office Space Plant and Equipment Expenses Allocated to ACE II</b>		
	<b>FY2017</b>	<b>May-Dec. 2017</b>
<b>Total Office Space Plant &amp; Equip. Expenses</b>	[REDACTED]	[REDACTED]
<b>Time Allocated to ACE II</b>	[REDACTED]	[REDACTED]
<b>Office Space Plant &amp; Equip. Expenses Related to ACE II</b>	[REDACTED]	[REDACTED]

<b>TABLE 20: BNI's Direct Labor Expenses Allocated to ACE II</b>		
	<b>FY 2017</b>	<b>May-Dec. 2017</b>
<b>Total BNI Technical Employee Expenses</b>	[REDACTED]	[REDACTED]
<b>Payroll Weighted Average</b>	[REDACTED]	[REDACTED]
<b>Allocated to ACE II</b>	[REDACTED]	[REDACTED]

CPHB at 57, 58.<sup>16</sup>

BiTMICRO's expert, Dr. Bazelon, testified that while "BNI's investments in the ACE II are considerably smaller than for the Altima I, reflecting that the ACE II is a new product," BNI's U.S. investment in FY 2017 of more than [REDACTED] in labor and capital in the new ACE II is quite significant for a company the size of BNI." CX-0865C at Q65.

<sup>16</sup> BiTMICRO's expert, Dr. Bazelon, calculates slightly higher domestic expenditures in BNI's labor expenses for ACE II. *See* CX-0865C at Q70-72, 84; CX-0865C.2C.



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In ascertaining whether a complainant has established that its activities are significant with respect to the articles protected by the intellectual property right concerned, the Commission has considered, among other things, the value added to the article in the United States by the domestic activities. *See, e.g., Cabinet Hinges*, Inv. No. 337-TA-289, Comm'n Op. at 32 (“‘significance’ as used in the statute denotes an assessment of the relative importance of the domestic activities”). The Commission has also assessed the relative domestic contribution to the protected article by comparing complainant’s product-related domestic activities to its product-related foreign activities. *See, e.g., Male Prophylactic*, Inv. No. 337-TA-546, Comm’n Op. at 43 (finding that complainant’s undertakings, measured on a comparative basis, created meaningful value added to the imported product).

In this case, however, BiTMICRO failed to submit evidence to substantiate the significance of BNI’s activities with respect to the ACE II product. The entirety of BiTMICRO’s evidence regarding the significance of BNI’s domestic activities in developing the ACE II is a single, conclusory statement from its expert, Dr. Bazelon, that BNI’s labor investment in the ACE II “is quite significant for a company the size of BNI.” CX-0865C at Q65. BiTMICRO submitted no evidence to show how its activities and investments were important to the ACE II in the context of the company’s operations, the marketplace, or the industry in question. BiTMICRO has also not described with sufficient specificity whether BNI’s domestic activities had a direct bearing on the practice of the ’190 patent. ID at 28. Nor did BiTMICRO demonstrate whether and to what extent its domestic activities added value to the imported ACE II products or otherwise demonstrated that these figures were quantitatively significant or substantial. Thus, the Commission is left to consider only the magnitude of BNI’s domestic expenditures in an absolute sense.

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BiTMICRO argued in its petition for review that it provided a comparative analysis with BNI's total U.S. operations to show that BNI's labor expense in developing the ACE II product is significant and substantial, "reaching a level [REDACTED] of the company's flagship Altima I product in 2017, which today accounts for over [REDACTED] of BNI's revenue." CPet at 5 (citing CPHB at 60). This attorney argument was also made in BiTMICRO's post-hearing brief and is insufficient to show the significance of BNI's investment for ACE II because it simply compares alleged investments for the ACE II to a sole product, which does not provide relative context in terms of overall importance.

"As our prior decisions recognize, however, the magnitude of the investment cannot be assessed without consideration of the nature and importance of the complainant's activities to the patented products in the context of the marketplace or industry in question." *Printing and Imaging Devices*, Inv. No. 337-TA-690, Comm'n Op. at 31. In *Printing and Imaging Devices*, the Commission found complainant's employment of labor devoted to the service and repair of its domestic industry products was insufficient to support its claim that those expenses were "significant" because it failed to show a comparison of its domestic industry activities with its foreign activities. *Id.* at 32. The Commission found the complainant in that case also failed to submit any "evidence to show how its domestic activities add any value to the completed saleable product, or to demonstrate the nature and relative importance of its activities to the articles protected by the patent (in view of the relevant industry or marketplace)." *Id.*

Similarly, in this case, BiTMICRO's expert on domestic industry, Dr. Bazelon, explicitly acknowledged during his testimony at the evidentiary hearing that he did not conduct a contextual analysis showing the significance of BNI's investments for ACE II. Specifically, Dr. Bazelon acknowledged during cross-examination that he "didn't investigate foreign plant,

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equipment, labor or capital investments relating to the Ace II,” even though the ACE II is manufactured entirely abroad. Tr. at 172:9-15. He also acknowledged that he “didn’t conduct a value-added or direct-cost-based significance analysis for the Ace II.” *Id.* at 172:16-19. Aside from stating that BNI’s labor investment in the ACE II is “quite significant for a company the size of BNI,” Dr. Bazelon admitted that he did not “provide a quantitative comparison to BNI’s other labor and capital expenses,” nor a “quantitative comparison to the labor and capital expended towards BNI’s other new products.” *Id.* at 173:1-13. Accordingly, the Commission affirms, with the modified analysis set forth above, the ID’s finding that BiTMICRO has not met its burden of showing a substantial or significant domestic industry with respect to the ’190 patent.

### III. CONCLUSION

The Commission has determined to affirm with modified reasoning the ID’s conclusion that BiTMICRO has satisfied the economic prong of the domestic industry requirement with respect to the ’243, the ’103, and the ’416 patents, but not with respect to the ’190 patent. Accordingly, the investigation is terminated with a finding of no violation of section 337 with respect to the ’190 patent.

By order of the Commission.



Lisa R. Barton  
Secretary to the Commission

Issued: June 29, 2018

**CERTAIN SOLID STATE STORAGE DRIVES, STACKED  
ELECTRONICS COMPONENTS, AND PRODUCTS  
CONTAINING SAME**

**Inv. No. 337-TA-1097**

**PUBLIC CERTIFICATE OF SERVICE**

I, Lisa R. Barton, hereby certify that the attached **Opinion, Commission** has been served by hand upon the Commission Investigative Attorney, **Reginald Lucas, Esq.**, and the following parties as indicated, on June 29, 2018.



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**CERTAIN SOLID STATE STORAGE DRIVES, STACKED  
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Certificate of Service – Page 2

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