

**PUBLIC VERSION**

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

**In the Matter of**

**CERTAIN CERAMIC CAPACITORS AND  
PRODUCTS CONTAINING SAME**

**Investigation No. 337-TA-692**

**COMMISSION OPINION**

This investigation is before the Commission for a final disposition. The Commission has determined to affirm the presiding administrative law judge's ("ALJ") determination that Respondents did not violate section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, in connection with claims 1-4, 7, 17, 18, 23, 28-31, 34, and 51-53 of United States Patent No. 6,266,229 ("the '229 patent").<sup>1</sup> The ALJ found that the Applicant Admitted Prior Art ("AAPA") cannot constitute a "single allegedly anticipatory reference pursuant to Section 102." ID at 139. Specifically, the AAPA refers to characterizations of figures 15 through 17 of Japanese Unexamined Patent Publication No. H2-256216 in the specification of the '229 patent. *See, e.g.,* '229 patent (JX-1) Background of the Invention. To the extent that the ALJ's findings suggest that the AAPA is not prior art, the Commission reverses that finding. As a result, the Commission finds that the asserted claims of the '229 patent are obvious in light of a combination of (1) the AAPA and the knowledge in the art at the time of filing the '229 patent's

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<sup>1</sup> The Commission adopted the ALJ's findings that Respondents did not violate section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, in connection with claims 1, 2, 9, 11-14, and 19-20 of United States Patent No. 6,243,254 and claim 3 of United States Patent No. 6,014,309 and terminated those patents from the investigation in its Notice issued on February 23, 2011 to review the final ID in part. 76 *Fed. Reg.* 11275 (Mar. 1, 2011).

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priority document, (2) the AAPA and Nagakari, or (3) the AAPA and the deNeuf product. The Commission vacates the ALJ's finding that the AAPA does not anticipate the asserted claims of the '229 patent; and given the Commission's finding that the asserted claims are invalid for obviousness, the Commission does not reach the issue of anticipation. The Commission adopts the ALJ's findings regarding the '229 patent in all other respects.

### **I. BACKGROUND**

#### **A. Procedural History**

The Commission instituted this investigation on November 4, 2009, based on a complaint filed by Murata Manufacturing Co., Ltd. of Kyoto, Japan and Murata Electronics North America, Inc. of Smyrna, Georgia (collectively, "Murata"). 74 *Fed. Reg.* 57193-94 (Nov. 4, 2009). The complaint alleged violations of section 337 of the Tariff Act of 1930 (19 U.S.C. § 1337) in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain ceramic capacitors and products containing the same by reason of infringement of various claims of the '229 patent and United States Patent Nos. 6,243,254 ("the '254 patent"); 6,014,309 ("the '309 patent"); and 6,377,439 ("the '439 patent"). The complaint named Samsung Electro-Mechanics Co., Ltd. of Suwon City, Korea and Samsung Electro-Mechanics America, Inc. of Irvine, California (collectively, "Samsung") as respondents. The '439 patent was subsequently terminated from the investigation.

On December 22, 2010, after a hearing and briefing from the parties, the ALJ issued his final ID, finding no violation of section 337 by Respondents with respect to any of the asserted

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claims of the '254 patent, the '309 patent, and the '229 patent. With respect to the '229 patent, the ALJ found that the accused products meet all the limitations of the asserted claims, that a domestic industry that practices the patent exists, and that the asserted claims are not rendered unenforceable due to inequitable conduct. The ALJ further found that the cited references do not anticipate the asserted claims but found that the prior art rendered the asserted claims obvious. Thus, he found no violation with respect to the '229 patent.

On January 4, 2011, Murata filed a petition for review of the ID challenging several of the ALJ's findings. *See* Complainants' Petition for Review of the Initial Determination on Violation of Section 337 ("Murata Pet."). With respect to the asserted claims of the '229 patent, Murata challenged the ALJ's finding that the prior art renders the asserted claims of the patent obvious. Murata Pet. at 18.

Also on January 4, 2011, the Commission investigative attorney ("IA") filed a petition for review of the ID. *See* Petition of the Office of Unfair Import Investigations for Review of the Initial Determination on Violation of Section 337 ("IA Pet."). Specifically, the IA asked the Commission to review, among other things, the ALJ's finding that the asserted claims of the '229 patent are not rendered obvious by the AAPA. *Id.* at 28.

Further on January 4, 2010, Samsung filed a contingent petition for review.<sup>2</sup> *See*

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<sup>2</sup> Under the Commission's Rules, contingent petitions for review are treated as petitions for review. 19 C.F.R. § 210.42(b)(3).

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Respondents' Contingent Petition for Review ("Samsung Pet."). In the event that the Commission granted Murata's or the IA's petition for review, Samsung requested that the Commission review certain issues in the ID, including the ALJ's finding that the asserted claims of the '229 patent are not anticipated and/or rendered obvious by the AAPA.

On January 12, 2011, Samsung filed a reply to Murata's petition for review. *See* Respondents' Response to Complainants' Petition for Review. Also on January 12, 2011, Murata filed a consolidated response to the IA's petition for review and Samsung's contingent petition for review. *See* Complainants' Consolidated Response to Respondents' Contingent Petition for Review and the Staff's Petition for Review of the Initial Determination on Violation of Section 337. That same day, the IA also filed a response to the petitions for review. *See* Response of the Office of Unfair Import Investigation to Complainants' and Respondents' Petitions for Review of the Initial Determination on Violation of Section 337.

On February 23, 2011, the Commission determined to review the final ID in part and requested briefing on several issues it determined to review, and on remedy, the public interest and bonding. *76 Fed. Reg.* 11275 (Mar. 1, 2011). Specifically, the Commission determined to review the findings related to the '229 patent and in particular the finding that the AAPA does not invalidate the asserted claims of the '229 patent. The Commission determined not to review any issues related to the '309 patent and the '254 patent and, therefore, terminated those patents from the investigation. In its notice of review, the Commission asked the parties to brief the

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following questions:

1. Can characterizations of the prior art that patent applicants make in the specification constitute the “single allegedly anticipatory reference pursuant to Section 102”? *See* ID at 139. Even if those characterizations cannot constitute such a reference, are applicants bound by characterizations of the prior art contained in the specification? In your response, please consider *Pharmastem Therapeutics, Inc. v. Viacell, Inc.*, 491 F.3d 1342, 1362 (Fed. Cir. 2007) and *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1570 (Fed. Cir. 1988).
2. Assume that patent applicants are bound by their characterizations as described above. Have the '229 applicants made concessions showing that the asserted claims of the '229 patent are anticipated or obvious? Please specify how the alleged applicant admissions disclose that a single prior art reference discloses each limitation of the asserted claims and/or that a combination of prior art references render the claims obvious. Please cite only record evidence and relevant legal authority to support your position.
3. Assume that the specification can constitute a single allegedly anticipatory reference pursuant to Section 102. Please provide an analysis as to anticipation and obviousness. Please cite only record evidence and relevant legal authority to support your position.

On March 8, 2011, the parties filed written submissions on the issues under review, remedy, the public interest, and bonding. *See* Complainant’s Response to Notice of Commission Determination to Review in Part a Final Initial Determination Finding No Violation of Section 337 (“Murata Br.”); OUII’s Submission on the Issues Under Review and on Remedy, the Public Interest and Bonding (“IA Br.”); Respondents’ Brief in Response to the Commission’s Notice to Review in Part the ALJ’s Final Initial Determination (“Samsung Br.”). On March 15, 2011, the parties filed reply briefs.

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### **B. Patents and Technology at Issue**

The technology at issue in this investigation covers certain multi-layer ceramic capacitors (“MLCCs”). ID at 3-4. Capacitors are “passive” electronic devices that consist of one or more pairs of parallel, conducting electrode plates separated by an insulating material (*i.e.*, dielectric). *Id.* at 3. Multi-layer capacitors contain more than one pair of electrode plates, or internal (inner) electrodes, embedded in a ceramic block with a dielectric layer between each pair of electrodes. *Id.* at 3-4. The internal electrodes are electrically connected, either directly or with a lead electrode, to external (outer) electrodes. *Id.* at 4. In an electrical circuit, when a voltage is applied to the external electrodes of a multilayer capacitor, the parallel internal electrodes in each pair acquire equal but opposite (positive and negative) charges, and energy is stored in the dielectric between the internal electrodes. *Id.*

The '229 patent, entitled “Multilayer Capacitor,” resulted from U.S. Patent Application No. 09/501,084, filed on February 9, 2000, which is a continuation-in-part of Application No. 09/042,379, filed on March 13, 1998, now U.S. Patent No. 6,072,687. The '229 patent issued on July 24, 2001 and claims priority to (JP) 9-306717, dated November 10, 1997, and (JP) 11-370803, dated December 27, 1999. The '229 patent names Yasuyuki Naito, Masaaki Taniguchi, Yoichi Kuroda, Takanori Kondo, Michihiro Murata, and Yoshitaka Tanino as the inventors, and lists Murata Manufacturing Co., Ltd. as the assignee.

The '229 patent discloses a “multi-layer capacitor device” that includes a capacitor body including “first electrode plates and a plurality of second electrode plates,” and the asserted

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claims are generally directed to a multilayer capacitor where the lead portion of the electrodes have a specified arrangement with a length-to-width (L/W) ratio falling between a certain range. *See* Abstract. Murata has asserted independent claims 1, 28, and 51 together with dependent claims 2-4, 7, 17, 18, 23, 29-31, 34, 52, and 53 in this investigation. *See* ID at 7-8.

### C. Products at Issue

The accused products in this investigation are MLCCs, including high capacitance MLCCs and low equivalent series induction (“ESL”) MLCCs. Murata accuses Samsung of importing and selling the products accused in this investigation. ID at 12.<sup>3</sup>

## IV. VIOLATION ISSUES UNDER REVIEW

### A. Applicable Law

#### 1. Anticipation

“Claimed subject matter is ‘anticipated’ when it is not new; that is, when it was previously known.” *Sanofi-Synthelabo v. Apotex, Inc.*, 550 F.3d 1075, 1082 (Fed. Cir. 2008). “Invalidation on this ground requires that every element and limitation of the claim was previously described in a single prior art reference, either expressly or inherently, so as to place a person of ordinary skill in possession of the invention.” *Id.* A prior art reference that does not expressly set forth a particular claim element, may still anticipate the claim if the missing element is inherently disclosed by the reference. *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295 (Fed. Cir. 2002); *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). Inherent

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<sup>3</sup> For a detailed listing of accused products, see pages 12-14 of the final ID.

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anticipation occurs when “the missing descriptive material is ‘necessarily present,’ not merely probably or possibly present, in the prior art.” *Id.*

### 2. Obviousness

Under 35 U.S.C. § 103(a), a patent is valid unless “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103(a). Obviousness is a question of law, but “it is well understood that there are factual issues underlying the ultimate obviousness decision.” *Richardson-Vicks Inc. v. Upjohn Co.*, 122 F.3d 1476, 1479 (Fed. Cir. 1997) (citing *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966)).

After claim construction, “[t]he second step in an obviousness inquiry is to determine whether the claimed invention would have been obvious as a legal matter, based on underlying factual inquiries including: (1) the scope and content of the prior art, (2) the level of ordinary skill in the art, (3) the differences between the claimed invention and the prior art, and (4) secondary considerations of non-obviousness.” *Smiths Indus. Med. Sys., Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 1354 (Fed. Cir. 1999) (citing *Graham*, 383 U.S. at 17). The existence of secondary considerations of non-obviousness does not control the obviousness determination. *Richardson-Vicks*, 122 F.3d at 1483. Rather, a court must consider “the totality of the evidence” before reaching a decision on obviousness. *Id.*

The Supreme Court considered the obviousness inquiry in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 389 (2007) (“*KSR*”). The Court explained:

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When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Sakraida* and *Anderson's-Black Rock* are illustrative—a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

Following these principles may be more difficult in other cases than it is here because the claimed subject matter may involve more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement. Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.

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The obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents. The diversity of inventive pursuits and of modern technology counsels against limiting the analysis in this way. In many fields it may be that there is little discussion of obvious techniques or combinations, and it often may be the case that market demand, rather than scientific literature, will drive design trends. Granting patent protection to advances that would occur in the ordinary course without real innovation retards progress and may, in the case of patents combining previously known elements, deprive prior inventions of their value or utility.

*KSR*, 550 U.S. at 417-19.

The Federal Circuit has since held that when a patent challenger contends that a patent is

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invalid for obviousness based on a combination of several prior art references, “the burden falls on the patent challenger to show by clear and convincing evidence that a person of ordinary skill in the art would have had reason to attempt to make the composition or device, or carry out the claimed process, and would have had a reasonable expectation of success in doing so.”

*PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1360 (Fed. Cir. 2007) (citations omitted). Regarding the Federal Circuit’s TSM test,<sup>4</sup> the Court has explained that

[t]he TSM test, flexibly applied, merely assures that the obviousness test proceeds on the basis of evidence—teachings, suggestions (a tellingly broad term), or motivations (an equally broad term)—that arise before the time of invention as the statute requires. As *KSR* requires, those teachings, suggestions, or motivations need not always be written references but may be found within the knowledge and creativity of ordinarily skilled artisans.

*Ortho-McNeil Pharmaceutical, Inc. v. Mylan Laboratories, Inc.*, 520 F.3d 1358, 1365 (Fed. Cir. 2008).

### **B. Whether the AAPA Anticipates or Renders Obvious the Asserted Claims of the ’229 Patent**

The Commission determined to review the findings related to the ’229 patent and in particular the ALJ’s finding that the AAPA does not invalidate the asserted claims of the ’229 patent. Claim 1 of the ’229 patent, with the key claim term emphasized for clarity, is reproduced below:

Asserted independent claim 1 recites:

1. A multi-layer capacitor device comprising:

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<sup>4</sup> TSM test refers to teaching, suggestion, or motivation to combine references.

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- a capacitor body including top and bottom surfaces and opposed side surfaces which have continuously flat surfaces and are disposed between the top and bottom surfaces and opposed end surfaces disposed between the top and bottom surfaces and the opposed side surfaces, the capacitor body including a plurality of first electrode plates and a plurality of second electrode plates, the first and second electrode plates being interleaved with each other in opposed and spaced apart relation;
- a dielectric material located between each opposed set of the first and second electrode plates;
- the first and second electrode plates each including a main electrode portion and a plurality of spaced apart lead structures extending therefrom, respective lead structures of the first electrode plates being located adjacent respective lead structures of the second electrode plates in an interdigitated arrangement; and
- a plurality of electrical terminals located on each of the opposed side surfaces of the capacitor body, corresponding lead structures of the first electrode plates and corresponding lead structures of the second electrode plates being electrically connected together by respective ones of the electrical terminals to define a plurality of first polarity electrical terminals and a plurality of second polarity electrical terminals, respectively, located on the capacitor body; wherein
  - each of the first polarity terminals is disposed opposite to another of the first polarity terminals across the capacitor body and each of the second polarity terminals is disposed opposite to another of the second polarity terminals across the capacitor body; and
  - at least one of the lead structures of the first and second electrode plates have a length L and a width W and a ratio L/W is equal to about 3 or less.**

The ALJ found that the AAPA failed to anticipate or render obvious the asserted claims of the '229 patent because the AAPA cannot constitute a “single allegedly anticipatory

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reference.” ID at 138-142. Samsung relied on representations of the prior art, particularly those referring to Japanese Unexamined Patent Publication No. H2-256216 (“H2 application”), that the patentees made in the background section of the ’229 patent and argued that those representations either anticipated or rendered obvious the asserted claims of the patent. *Id.* The ALJ found that Samsung’s argument presented “some difficulty as to what is considered the single alleged anticipatory reference pursuant to Section 102” and added that “[s]urely Samsung is not attempting to argue that the ’229 patent specification itself is this anticipatory reference.” *Id.* at 139. The ALJ further stated that “[i]f Samsung means the H2 application, it is unclear why Samsung indirectly approaches this reference through the ’229 patent specification.” *Id.* The ALJ then compared the prior art drawings in the ’229 patent with the drawings in the H2 application and noted that “[i]t is apparent that the ’229 patentees have added something to the description and drawings of the H2 application that is not contained within the four corners of that reference,” concluding that “it is clear that Samsung has not met its burden of showing by clear and convincing evidence that the AAPA, as disclosed in the ’229 patent rather than in the H2 application, meets the requirements of a single prior art reference pursuant to Section 102.” *Id.* at 141.

We find that the ALJ erred in finding that the AAPA cannot be used to invalidate the asserted claims of the ’229 patent. ID at 138-142. Indeed Murata agrees that Federal Circuit precedent establishes that the characterizations of the prior art in the asserted patent itself can constitute prior art. Murata Br. at 3-4. For example, in *In re Nomiya*, the specification of the

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asserted patent included two figures depicted as “prior art.” *In re Nomiya*, 509 F.2d 566, 567 (CCPA 1975). The United States Patent and Trademark Office (“PTO”) examiner combined those figures with another reference and rejected the claims as being obvious. The applicants challenged the PTO’s consideration of the figures as prior art. The Federal Circuit’s predecessor, the Court of Customs and Patent Appeals rejected the challenge, stating:

We see no reason why appellants’ representations in their application should not be accepted at face value as admissions that Figs. 1 and 2 be considered ‘prior art’ for any purpose, including use as evidence of obviousness under 103. . . . By filing an application containing Figs. 1 and 2 labeled prior art, *ipsissimis verbis*, and statements explanatory thereof, appellants have conceded what is to be considered as prior art in determining obviousness of their improvement.

*Id.* at 570-571; Manual of Patent Examination and Procedure §§ 2129 (I), 706.02 (8th ed. 2010).

The Federal Circuit has followed this reasoning and concluded that “a statement by an applicant during prosecution identifying certain matter not the work of the inventor as ‘prior art’ is an admission that the matter is prior art.” *Riverwood Int’l Corp. v. R.A. Jones & Co., Inc.*, 324 F.3d 1346, 1354 (Fed. Cir. 2003). That is, characterizations of the prior art that applicants make can constitute prior art. *Id.* (“Valid prior art may be created by the admissions of the parties,” citing *In re Fout*, 675 F.2d 297, 300 (CCPA 1982)); *see also Pharmastem Therapeutics, Inc. v. Viacell, Inc.*, 491 F.3d 1342, 1362 (Fed. Cir. 2007); *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1570 (Fed. Cir. 1988). As in *In re Nomiya*, the ’229 applicants admitted in the specification that certain figures, specifically figures 15 through 17, represent prior art. ’229 patent (JX-1), col. 1, l. 13 - col. 2, l. 50; col. 5, ll. 65-68. Thus, based on Federal Circuit

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precedent, the applicants' characterization of figures 15 through 17 as capacitors well known in the art can be considered "prior art." We therefore reverse the ALJ's finding to the extent it suggests that the AAPA cannot constitute prior art.

We find that the asserted claims of the '229 patent are obvious in light of the AAPA and the knowledge in the art at the time of filing the patent's priority document, or alternatively are rendered obvious by a combination of the AAPA with Japanese unexamined patent application H11-21429 ("Nagakari") or a combination of the AAPA with product samples sold by Murata and provided by Mr. deNeuf ("deNeuf product"). Murata states in its brief that "the AAPA is not materially different from DuPré [U.S. Patent No. 5,880,925 to DuPré et al.] " (Murata Br. at 1), and has not challenged the ALJ's finding that DuPré discloses all the limitations of the asserted independent claims except for the recited L/W ratios. ID at 171. Moreover, Murata concedes that figures 15 through 17 disclose all the limitations of the asserted claims except for the L/W ratio. Murata's Post Hearing Brief at 119-120. The only question remaining therefore is whether the recited L/W ratios were within the knowledge of one of ordinary skill in the art at the time of filing the priority document for the '229 patent. We find that the record evidence contains ample documentation corroborating Dr. Randall's testimony that the claimed invention, including L/W ratios, would have been obvious to one of ordinary skill in the art. Randall Tr. at 1611-14.

Papers written by AVX<sup>5</sup> engineers prior to the filing of the priority document for the

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<sup>5</sup> AVX refers to AVX Corporation, an entity in the MLCC arena that has (or had) licensing agreements with Murata. AVX Corporation is not a party to the investigation.

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patent show that the L/W ratio was relevant to inductance. *See* RX-532, RX-538, CX-569.

These publications teach that reducing the L/W ratio leads to a reduction in the effective series inductance (“ESL”), a goal of the recited L/W ratio in the asserted claims. *See, e.g.*, ’229 patent, col. 14, ll. 62-64. One of the papers states that “[t]he effective series inductance (ESL) defines that loss element which must be overcome as current flow is constricted within a given envelope. The tighter the restriction (high aspect ratio or L/W), the higher the ESL, and vice versa.” RX-532 at SEMC000263240; Randall Tr. at 1631:12-20. Another paper includes a chart that illustrates the reduction in inductance that arises directly from a reduction in the L/W ratio. RX-538; Randall Tr. at 1630:12-1631:2. Murata disputes the relevance of these publications, arguing that they are directed to conventional, end terminated capacitors and thus not applicable. Murata Pet. at 22-23. Murata, however, fails to present any evidence to substantiate its allegation that because those papers are directed to conventional, end terminated capacitors, an ordinarily skilled artisan would not have consulted them or known about them. Murata merely relies on its own attorney arguments, despite testimony that an ordinarily skilled artisan would have known of this relationship. Randall Tr. at 1632:6-10 (“Q. Dr. Randall, this relationship between the length and the width and the reductions in inductance, would that be known to a person of skill in the art in 1999? A. Absolutely. It would be known.”).

In addition, as the ALJ found, Murata’s own expert, Dr. Ulrich, confirmed that a person of skill in the art would have understood that lowering the L/W ratio would result in reduced inductance, the objective of the recited L/W ratio in the asserted claims. *See, e.g.*, ’229 patent,

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col. 14, ll. 62-64. He testified that an ordinarily skilled artisan “would have known that shortening the current path by widening the lead electrode tabs [W] would have reduced inductance” and that “shortening lead electrodes [L] would also result in a reduction of inductance.” ID at 171 (citing Ulrich Tr. at 1288, 1294-96, 1300-01); *see also* Ulrich Tr. at 1004:13-1005:5; 1290:3-12 (“[Y]ou can reduce the path length of the current in the device [to reduce inductance]. And that’s well known.”). Murata accuses the ALJ of misunderstanding Dr. Ulrich’s testimony. Murata Pet. at 28. According to Murata, “Prof. Ulrich testified that a person of skill in the art would have known not only that a wider lead would reduce the current path between adjacent leads but also that changing the lead dimension would not reduce the much longer path lengths for current travels across a MLCC” and that this means that there would be no impact on inductance. *Id.* at 29 (citing its findings of fact CFF5.547-550; CRFF6.40). Dr. Ulrich’s testimony on this point, however, is clear, and Murata’s interpretation of his testimony does not negate the fact that he testified that an ordinarily skilled artisan would have known that “shortening lead electrodes” would reduce inductance and that “increasing the width of a lead electrode would also reduce inductance.” Ulrich Tr. at 1004:13-1005:5; 1290:3-12.

As the ALJ correctly found, Dr. Randall’s testimony was also corroborated by the unrebutted testimonies of Mr. Galvagni, a designer of “interdigitated low inductance products in the 1980’s through the mid-1990’s, who testified that he never designed general purpose interdigitated capacitors with tabs having a L/W ratio greater than 3 because that would ‘violate

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some of the first principles,” and Mr. deNeuf, “who designed and manufactured multilayer capacitor devices for a Murata U.S. subsidiary until 1995” and who testified that “one of the considerations for determining the width of the lead electrodes for the capacitor he designed was ‘to improve the ESR inductance properties of the products.’” Galvagni Tr. at 1474-77; deNeuf Tr. at 1485-87, 1489, 1492-93, 1500-01. Murata does not present any evidence to rebut these testimonies. Rather, Murata argues that Mr. Galvagni has more than just ordinary skill in the art and that Mr. deNeuf’s testimony is “garbled.” Murata Pet. at 24-27. The simple fact that Mr. Galvagni has extensive experience in the art does not mean that he cannot testify as a fact witness to what the knowledge of an ordinarily skilled artisan would have been, and Murata cites no authority for that proposition. The allegation that Mr. deNeuf’s testimony is “garbled” is just that—an allegation, and not substantiated by any evidence other than attorney argument. Thus, we find that clear and convincing evidence establishes that combining the AAPA with the knowledge in the art as of the date of the priority document for the ’229 patent renders the asserted claims obvious.

Clear and convincing evidence also supports a finding that the AAPA in combination with either Nagakari or the deNeuf product renders the asserted claims obvious. We find that an ordinarily skilled artisan would combine the AAPA with either Nagakari or the deNeuf product because all three are in the same field of endeavor and reducing inductance is a well understood goal in the field. *See* Randall Tr. at 1632:6-10. In particular, Nagakari discloses a design for low

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inductance MLCC having first and second electrode plates including at least one lead electrode on each plate and describes three mechanisms for reducing inductance: (1) short current paths, (2) increased magnetic field cancellation, and (3) use of lead electrodes or tabs to create multiple current paths. Randall Tr. at 1646:10-1647:3; Nagakari (RX-413) at ¶¶ 0010, 0021, 0043, 0053, Figs. 1 and 6. Nagakari specifically discloses dimensions of the lead electrode as 0.1 mm long and 0.15 mm wide, resulting in a L/W ratio of 0.667, which is within the narrowest L/W range claimed in the asserted claims. *Id.* As noted above, the only limitation that Murata argues is missing from the AAPA is the recited L/W ratio. Thus, the AAPA in combination with Nagakari renders the asserted claims obvious.

With respect to the deNeuf product, no dispute exists that they have electrode tabs with a L/W ratio between 1.59 and 2.9, well within the range of the asserted claims. ID at 172-173. Murata argues that one of ordinary skill in the art would not combine them because “the deNeuf product is a product, not a writing, and so it does not provide any guidance or teaching whatsoever.” Murata Pet. at 33. Murata, however, points to no authority for the proposition that one cannot combine a product with a publication in an obviousness inquiry, but relies exclusively on its attorneys’ argument. *See Dippin’ Dots, Inc. v. Mosey*, 476 F.3d 1337, 1344 (Fed. Cir. 2007) (indicating that a prior art product can be combined with other references to render claims obvious).<sup>6</sup> As noted above, the AAPA discloses all the claim limitations except for the range of

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<sup>6</sup> We note that there is no dispute that the deNeuf product is prior art to the ’229 patent. deNeuf Tr. at 1490:7-18, 1492:16-25, 1493:1-6; CRFF 6.742-6.747; ID at 172. Specifically, the deNeuf products were manufactured and sold in the United States between 1993 and 1995, more

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the L/W ratio, and the deNeuf product discloses L/W ratios within the claimed range. Moreover, both the AAPA and the deNeuf product are in the same field of endeavor. Thus, an ordinarily skilled artisan would combine the AAPA with the deNeuf product, rendering the asserted claims obvious.

Because the Commission finds that the asserted claims of the '229 patent are invalid for obviousness, the Commission does not reach the issue of anticipation.<sup>7</sup> The Commission thus vacates the ALJ's finding that the AAPA does not anticipate the asserted claims of the '229 patent.

## VIII. CONCLUSION

For the reasons set forth above, to the extent the ALJ's finding that the AAPA cannot constitute a "single allegedly anticipatory reference pursuant to Section 102" suggests that the AAPA is not prior art, the Commission reverses that finding. The Commission finds that the asserted claims of the '229 patent are obvious in light of a combination of (1) the AAPA and the knowledge in the art at the time of filing the patent's priority document, (2) the AAPA and Nagakari or (3) the AAPA and the deNeuf product. Given our determination that the asserted claims are invalid for obviousness, we do not reach the issue of anticipation. We adopt the ALJ's findings regarding the '229 patent in all other respects, including his finding that DuPré

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than a year before the earliest priority date of November, 1997 for the '229 patent.

<sup>7</sup> See *Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984) ("The Commission . . . is at perfect liberty to reach a 'no violation' determination on a single dispositive issue. That approach may often save the Commission, the parties, and this court substantial unnecessary effort.").

**PUBLIC VERSION**

either alone or in combination with Nagakari or the deNeuf product renders the asserted claims obvious.

By order of the Commission.

A handwritten signature in black ink, appearing to read "J R Holbein", with a long horizontal flourish extending to the right.

James R. Holbein  
Secretary to the Commission

Issued: May 16, 2011

PUBLIC CERTIFICATE OF SERVICE

I, James R. Holbein, hereby certify that the attached **COMMISSION OPINION** has been served by hand upon, the Commission Investigative Attorney, Aarti Shah, Esq., and the following parties as indicated on **May 17, 2011**.



James R. Holbein, Secretary  
U.S. International Trade Commission  
500 E Street, SW, Room 112  
Washington, DC 20436

On Behalf of Complainants Murata Manufacturing Co, Ltd.  
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- Via Overnight Delivery
- Via First Class Mail
- Other: \_\_\_\_\_

On Behalf of Respondents Samsung Electro-Mechanics Co,  
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