

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

**Before the Honorable Monica Bhattacharyya
Administrative Law Judge**

In the Matter of

**CERTAIN POWER SEMICONDUCTORS, AND
MOBILE DEVICES AND COMPUTERS
CONTAINING SAME**

Inv. No. 337-TA-1308

**COMPLAINANT ARIGNA TECHNOLOGY LIMITED'S
CORRECTED REBUTTAL CLAIM CONSTRUCTION BRIEF**

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I. INTRODUCTION

Staff and Respondents continually commit “one of the cardinal sins of patent law – reading a limitation from the written description into the claims.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1320 (Fed. Cir. 2005) (en banc) (internal quotation marks omitted). Respondents also ignore the prosecution history, which makes clear the scope of the claimed invention, in an aggressive effort to impose limitations that nowhere exist in the claim language. Many of Respondents’ constructions would replace simple claim terms having well-established meanings with complicated paragraphs full of limitations. Others of Respondents’ constructions would render the patentee’s drafting choices superfluous and nonsensical by ascribing the same meaning to different words. For example, Respondents aim to limit the term “insulated gate transistor” to “insulated gate *bipolar* transistor” even though the patentee specifically distinguished between the two throughout the Patent. The ALJ should adopt Complainant’s proposed constructions.

II. DISPUTED CONSTRUCTIONS

A. Claim preamble (Claim 1)

Complainant	Respondents	Staff
Non-limiting in part	Limiting	Limiting

There is no basis for construing the first phrase of the preamble—“A semiconductor device controlling a drive of”—as limiting because it is a statement of intended use that provides no antecedent basis for any claim language.

1. The prosecution history shows that the first phrase of the preamble is a non-limiting statement of intended use.

“Generally, the preamble does not limit the claims.” *Allen Eng’g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1346 (Fed. Cir. 2002). This is particularly true when there is no “clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art.”

Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc., 289 F.3d 801, 808 (Fed. Cir. 2002).

Here, there was no reliance on the first phrase of the preamble to distinguish prior art. Indeed, during prosecution, the examiner found that the Sasaki prior art reference “shows *a semiconductor device for controlling the drive of insulated gate transistor 1 by generating a control output signal . . . on a basis of a control input signal.*” Decl. of Kemper Diehl (“Diehl Decl.”), Ex. 3 at ARIGNA-1308_00000210. The examiner’s language parallels the preamble of Claim 1 almost verbatim. *See* ’835 Patent at Claim 1 (“A semiconductor device controlling a drive of an insulated gate transistor by generating a control output signal on a basis of a control input signal”). The examiner likewise determined that the Ohi reference *also* “shows a semiconductor device . . . for controlling the drive of insulated gate transistor 11 by generating a control output signal . . . on the basis of a control input signal.” Diehl Decl. at ARIGNA-1308_00000210-211. In light of these references, the examiner rejected the original Claim 1 as anticipated. *See id.*

The examiner found a patentable invention in the original application’s Claim 2, however, which became Claim 1 in the issued ’835 Patent. The examiner explained that, notwithstanding the prior art references that he found had also addressed the intended use of controlling a drive of an insulated gate transistor, Claim 2 was patentable because “[t]here is presently no motivation to modify or combine any prior art reference(s) to ensure the short-circuit protection circuit includes the relationships between the pulse generation circuit, comparator, and logical circuit as recited within claim 2.” *Id.* at ARIGNA-1308_00000211. By amendment, the patentee then canceled the rejected Claim 1 and amended Claim 2. The amended Claim 2 included—in its preamble—the phrase the examiner had found disclosed in prior art references. The first phrase of the preamble thus describes an *intended use* of the invention—it is for “controlling a drive of an insulated gate transistor”—*before* the rest of the claim language discloses the inventive aspects of the invention.

The Federal Circuit found a claim preamble non-limiting in similar circumstances. *Cochlear Bone Anchored Sols. AB v. Oticon Med. AB*, 958 F.3d 1348 (Fed. Cir. 2020). The court held that the preamble phrase, “for rehabilitation of unilateral hearing loss,” which was “a conventional use of prior art bone-anchored hearing aids,” was not limiting because it was “merely a statement of intended use of the claimed hearing aid” and “this use itself is not an inventive or patentably distinct aspect of the claimed invention.” *Id.* at 1355. The same is true here.¹

The claimed invention in the '835 Patent follows the first preamble phrase's statement of intended use and provides a novel solution for the purpose of controlling a drive of an insulated gate transistor and detecting short-circuit conditions. The invention's elements include a driver outputting a control output signal and a short circuit protection circuit, consisting of specific elements, detecting the control output signal and controlling and forcing the driver to stop it under certain conditions. In light of the prosecution history, there is no basis on which to argue that the first phrase of the preamble limits the patented invention. It merely identifies an intended use for the driver and short-circuit protection circuit: to control a drive of an insulated gate transistor.

2. That parts of the preamble introduce structural elements found in the claims does not mean other parts of the preamble are limiting.

While a preamble “may be limiting to the extent it is necessary to provide antecedent basis for the body of the claim,” *Cochlear Bone*, 958 F.3d at 1355 (citation omitted), each portion of the preamble must be examined independently. In *TomTom*, for example, the Federal Circuit held that the first part of the preamble, “method for generating and updating data,” was “not limiting and

¹ Respondents advance *Proveris Sci. Corp. v. Innovasystems, Inc.*, 739 F.3d 1367, 1373 (Fed. Cir. 2014), as support for their argument that the preamble is limiting because it “recites essential aspects of the alleged invention.” Resps.’ Op. Br. at 16. In *Proveris*, the Court found a preamble limiting because it contained “the *only* reference in any independent claim to the inventive concept.” 739 F.3d at 1373. This is not the case here, where the examiner found the first preamble phrase does not recite the claim’s inventive concept.

[did] not provide an antecedent basis for any of the claims.” *TomTom, Inc. v. Adolph*, 790 F.3d 1315, 1323-24 (Fed. Cir. 2015). The Federal Circuit also found this phrase did not recite essential structure or steps, or give necessary life, meaning, and vitality to the claim; rather, it stated “a purpose or intended use.” *Id.* At the same time, the Federal Circuit held that the second part of the preamble, “destination tracking system of at least one mobile unit,” was limiting because it provided antecedent basis for “the mobile unit” recited in the body of the claims. *Id.*

The Federal Circuit’s analysis makes clear that if the ALJ determines the preamble is limiting to some extent, it is necessary to analyze each portion of the preamble independently. Here, as in *TomTom*, the first phrase of the preamble, “A semiconductor device controlling a drive of,” does not include structural elements and does not provide antecedent basis for any of the claim language that follows. It merely indicates “a purpose or intended use” for the invention. *Id.* Although the preamble describes “controlling a drive of an *insulated gate transistor*,”² which is a structural element that appears again in the claim language, this does not make the preamble’s statement of intended use limiting. “[T]he mere fact that a structural term in the preamble is part of the claim does not mean that the preamble’s statement of purpose or other description is also part of the claim.” *Marrin v. Griffin*, 599 F.3d 1290, 1295 (Fed. Cir. 2010) (preamble was non-limiting because “(1) the preamble language added in the amendment only added a statement of a purpose or an intended use for the invention, and (2) the patentee did not demonstrate clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art.”).

Respondents advance several cases in which courts “found a preamble limiting for providing antecedent basis,” Resps.’ Op. Br. at 15, but these cases are inapposite. They do not support finding parts of a preamble that do **not** provide antecedent basis to be limiting. *See Pacing*

² Unless otherwise noted, all emphasis is added.

Techs., LLC v. Garmin Int’l, Inc., 778 F.3d 1021, 1023 (Fed. Cir. 2015) (finding the preamble “[a] repetitive motion pacing system for pacing a user” to be limiting because “repetitive motion pacing system” and “user” both re-appeared in the claim language); *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1306 (Fed. Cir. 1999) (finding preamble limiting because the entire phrase was “intimately meshed with the ensuing language in the claim”); *General Elec. Co. v. Nintendo Co.*, 179 F.3d 1350, 1361 (Fed. Cir. 1999) (finding preamble limiting where it specifically narrowed the meaning of a claim term that followed in the claim body).

Finally, Respondents argue that “the ’835 patent specification confirms that the preamble recites part of the invention” because it states that “[a]n aspect of a semiconductor device according to the present invention is that a semiconductor device controls a drive of an insulated gate transistor by generating a control output signal on a basis of a control input signal.” Resps.’ Op. Br. at 18 (quoting ’835 Patent at 1:52-55). Respondents ignore the key initial qualification in this phrase—“an aspect.” The specification does not state that the invention is limited to “control[ling] a drive of an insulated gate transistor by generating a control output signal on a basis of a control input signal,” but rather that such use is *an aspect* of the invention. ’835 Patent at 1:52-55; cf. *Georgetown Rail Equip. Co. v. Holland L.P.*, 867 F.3d 1229, 1237 (Fed. Cir. 2017) (“The specification also uses the verb ‘can be,’ indicating an option rather than a requirement.”).

B. “insulated gate transistor” (Claims 1 and 2)

Complainant	Respondents	Staff
a transistor whose gate is electrically insulated from the channel	Plain meaning, <i>i.e.</i> IGBT (insulated gate bipolar transistor)	a transistor whose gate is electrically insulated from the channel

Throughout the intrinsic record, the patentee explicitly differentiated between insulated gate transistors and insulated gate *bipolar* transistors, making clear that the latter is an example of the former. Respondents’ argument that the term “insulated gate transistor” exclusively means

“insulated gate **bipolar** transistor” is contradicted by the intrinsic record, and factually wrong. The ALJ should construe this term as “a transistor whose gate is electrically insulated from the channel,” as both Complainant and Staff propose.

1. The intrinsic record is clear that the term “insulated gate transistor” is broader than the term “insulated gate bipolar transistor.”

The ’835 Patent is unmistakable in its teaching that the claim term “insulated gate transistor” is **not** limited to IGBTs. The specification repeatedly describes IGBTs as one kind of insulated gate transistor. Indeed, every time the specification mentions an IGBT, it is preceded by the words “such as” to make clear that is an **example** of an insulated gate transistor. ’835 Patent at 1:14-15 (“an insulated gate-type switching device such as an IGBT (Insulated Gate Bipolar Transistor) and so on”); *see also id.* at 1:17-19 (“the insulated gate type switching device such as the IGBT and so on”); *id.* at 2:50-51 (“insulated gate type switching devices such as an IGBT (Insulated Gate Bipolar Transistor) and so on”); *id.* at 6:6-7 (“the transistor 12 which is the insulated gate type switching device such as the IGBT and so on”). Rather than indicate that “insulated gate transistor” exclusively means “insulated gate **bipolar** transistor,” as Respondents assert, the specification defines “insulated gate transistor” to **include** IGBTs without limitation.

The patentee clearly knew how to identify IGBTs and could have limited the claims to IGBTs. But it did not. *See* Staff Op. Br. at 18-19 (“If the patentee had wanted to limit the claims to an IGBT, they could have done so using the same specific terminology for an IGBT that they use in the patent specification.”). There is no basis for narrowing the patentee’s claims to IGBTs now when the patentee specifically chose not to do so. “The patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning, unless the patentee explicitly redefines the term or disavows its full scope.” *Thorner v. Sony Computer Ent. Am. L.L.C.*, 669 F.3d 1362, 1367 (Fed. Cir. 2012).

Respondents argue that the intrinsic record supports construing “insulated gate transistor” to exclusively mean “insulated gate *bipolar* transistor,” but this argument wrongly seeks to restrict the scope of the claim term to an exemplary embodiment. Respondents point to transistor 12 in Figure 2 of the ’835 Patent and proclaim that “[t]here is no dispute that transistor 12 is an IGBT.” Resps.’ Op. Br. at 23. But there is also no dispute that Figure 2 describes an *exemplary* embodiment. The Federal Circuit has repeatedly stated that it is wrong to import limitations from exemplary embodiments into claim terms. *Phillips*, 415 F.3d at 1323 (“we have repeatedly warned against confining the claims to those embodiments”).

2. Respondents’ extrinsic evidence contradicts the intrinsic record.

Respondents advance a panoply of web links and technical articles from decades before the patentee’s initial application to make a sweeping claim that the term “insulated gate transistor” “is used singularly to refer to IGBTs.” Resps.’ Op. Br. at 22. This extrinsic evidence is irrelevant and inappropriate because it contradicts the intrinsic record, which makes clear the patentee’s use of “insulated gate transistor” to encompass transistors with insulated gates beyond just IGBTs. “A court may look to extrinsic evidence so long as the extrinsic evidence does not contradict the meaning otherwise apparent from the intrinsic record.” *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1382 (Fed. Cir. 2008); *Immunex Corp. v. Sanofi-Aventis U.S. LLC*, 977 F.3d 1212, 1222 (Fed. Cir. 2020) (rejecting extrinsic evidence that conflicted with intrinsic record). Here, Respondents’ assertion that the term “insulated gate transistor” means IGBT would make every mention of “insulated gate transistor” in the patent superfluous. If the patentee intended “insulated gate transistor” to mean IGBT, the patentee could have avoided using both terms (and painstakingly distinguishing between them) throughout the patent. *See* ’835 Patent at 1:14-15 (“an insulated gate-type switching device such as an IGBT (Insulated Gate Bipolar Transistor) and so on”); *see also id.* at 1:17-19 (similar); *id.* at 2:50-51 (similar); *id.* at 6:6-7 (similar).

Even if it were not improper to consider Respondents’ extrinsic evidence because it contradicts the intrinsic record, it should also be disregarded because it is cherry-picked and misrepresentative. Numerous authorities make clear that IGBTs are not the only transistors with insulated gates. For example, the insulated gate field-effect transistor, or IGFET, is commonly defined as a transistor “*whose gate is insulated* from the channel by a thin layer, usually consisting of a metal oxide.” Staff Ex. 9; *see also* Staff Ex. 10 (“As well as the Junction Field Effect Transistor (JFET), there is another type of Field Effect Transistor available whose *Gate input is electrically insulated* from the main current carrying channel”); Modern Dictionary of Electronics (Sixth Edition), Suppl. Decl. of Kemper Diehl, Ex. 5 (defining “MOS insulated-gate field-effect transistor” as a transistor in which a “metal electrode (gate) is placed above and insulated from the channel”); Staff Ex. 11 (“[t]he Insulated Gate Bipolar Transistor, (IGBT) *combines the insulated gate* (hence the first part of its name) *technology of the MOSFET* with the output performance characteristics of a conventional bipolar transistor, (hence the second part of its name).”).

At bottom, there is no reasonable basis for asserting that a skilled artisan would exclusively understand the term “insulated gate transistor” to mean IGBT when many other transistors share the feature of an insulated gate. This is particularly true after reading the patent, given that it specifies that IGBTs are but one example of an insulated gate transistor. *Phillips*, 415 F.3d at 1321 (“Properly viewed, the ‘ordinary meaning’ of a claim term is its meaning to the ordinary artisan after reading the entire patent.”).

C. “controlling a drive of an insulated gate transistor” (Claim 1)

Complainant	Respondents	Staff
Non-limiting preamble Alternatively, plain and ordinary meaning	controlling the voltage supplied to the gate of an insulated gate transistor to switch the transistor between ON and OFF states	controlling the voltage supplied to the gate of an insulated gate transistor to switch the transistor between ON and OFF states

As a threshold issue, this term is non-limiting for the reasons discussed in Section II(A) above, including because the phrase “controlling a drive of” is a statement of intended use that provides no antecedent basis for anything in the claim language and because the prosecution history makes clear the preamble is not part of the actual invention. *See supra*. Should the ALJ nonetheless determine that this portion of the preamble is limiting, then it should be construed as having its plain and ordinary meaning. There is no lexicography or disavowal in the intrinsic record to justify a departure from the plain and ordinary meaning. *Pacing Techs.*, 778 F.3d at 1024 (“The specification and prosecution history compel departure from the plain meaning in only two instances: lexicography and disavowal.”).

A construction other than the plain and ordinary meaning is unnecessary because the phrase “controlling a drive of an insulated gate transistor” is not ambiguous and would reasonably have been understood by a skilled artisan at the time of invention after reading the entire patent. Indeed, the examiner readily understood this phrase, noting during prosecution that “One of ordinary skill in the art would understand Sasaki’s Fig. 1 shows a semiconductor device for controlling the drive of [an] insulated gate transistor.” Diehl Decl., Ex. 3 at ARIGNA-1308_00000212. The examiner further illustrated a skilled artisan’s understanding of the term by equating “controlling a drive of an insulated gate transistor” with simply “driving the transistor.” *Id.*

Notwithstanding the examiner’s ease in understanding this claim term, Respondents and Staff seek to expand it into a complex web of limitations that nowhere appear in the claim language. Respondents’ and Staff’s proposed construction would add **three** distinct limitations, by specifying that “controlling a drive of” exclusively means (1) supplying a “voltage,” (2) “to the gate” of an insulated gate transistor, for the sole purpose of (3) “switch[ing] the transistor between ON and OFF states.” Given that the term “insulated gate transistor” is itself the subject of

construction, Respondents’ and Staff’s constructions purportedly derive from just four words: “controlling a drive of.” Each of these three added limitations should be rejected.

First, while the signal supplied by the “control output signal” to control a drive of an insulated gate transistor could be a voltage, the claim language is not so limited. The patentee specifically used the term “voltage” elsewhere in the language of claim 1 (*see* ’835 Patent at 11:44-45), and easily could have limited the invention to claim a “control output **voltage**.” But the patentee did not, and there is no reason to disrupt this clear choice.³ Respondents’ and Staff’s reliance on an exemplary embodiment in the specification is thus misplaced. Resps.’ Op. Br. at 27-28; Staff Op. Br. at 21. Just because the specification describes “a voltage of the control output signal” does not mean the invention is so limited. *Phillips*, 415 F.3d at 1323 (“we have repeatedly warned against confining the claims to those embodiments”).

Second, there is no reason to insert the limitation “to switch the transistor between ON and OFF states” into Claim 1. This addition would drastically narrow the scope of Claim 1 and has no foundation in the four words being construed here—“controlling a drive of.” The specification nowhere indicates that the insulated gate transistor can **only** exist in an ON state or an OFF state, nor that “controlling a drive of an insulated gate transistor” is narrowly limited to the moment of switching the transistor between ON and OFF states. To the contrary, the specification makes clear that controlling a drive of an insulated gate transistor entails maintaining one state for an ongoing period of time, such as maintaining an ON condition, and not just switching between states. *See, e.g.*, ’835 Patent at 6:47-49 (“Accordingly, the control output signal S3 is maintained, too, and **the**

³ Respondents assert without support that because Claim 1 compares a “detecting voltage of said control output signal” to a “reference voltage,” the control output signal itself must be a voltage. Resps.’ Op. Br. at 27. There is no basis on which to assume that the control output signal merely supplies a voltage, as opposed to a current or signal, simply because a “detecting voltage” can be derived from it.

ON state in the transistor 12 *is maintained.*”). Respondents’ and Staff’s additional language imposes a narrow limitation that does not exist in the claims and should be rejected.

Staff argues that this preamble phrase should be narrowly limited to encompass *only* “switch[ing] the transistor between ON and OFF states” because Staff is “concerned that Complainant’s construction might be part of an attempt to read the claim language onto a transistor being used as an amplifier and not a switch.” Staff Op. Br. at 24. This concession demonstrates that Staff is seeking to impose limitations on Claim 1 that do not appear in the claim language for reasons unrelated to identifying the plain and ordinary meaning of claim terms. There is nothing in the claim language that prevents the insulated gate transistor from “being used as an amplifier and not a switch.” *Id.* A purpose of the invention is to protect the insulated gate transistor from a short-circuit condition, and this could happen no matter whether the insulated gate transistor is being operated as a switch or as an amplifier. The Staff’s exhibits make clear that any POSITA reading the ’835 Patent would know that use modes of transistors include “saturation,” “cut-off,” “active,” and “reverse-active.” Staff Ex. 2. Just as the Staff argued that an “insulated gate transistor” should not be limited to IGBTs because the patentee clearly knew how to limit the claims as such, there is no basis to limit the insulated gate transistor to being used as a switching device. *See* Staff Op. Br. at 18-19.

Had the patentee intended to limit the scope of Claim 1 to insulated gate transistors used as switching devices, it could have used the specific terminology for a “switching device” it included in the specification. *See, e.g.,* ’835 Patent at 2:48-51 (“As shown in FIG. 1, groups of transistors 11 and 12, 21 and 22 and 31 and 32 (all N channel type) which are insulated gate type *switching devices* such as an IGBT (Insulated Gate Bipolar Transistor) and so on are connected . . .”); *id.* at 6:67 (“In this manner, the transistor 12 which is the insulated gate type *switching device*

such as the IGBT and so on . . .”). The patentee did not limit Claim 1 to a transistor operating as a “switching device,” even though it clearly knew how to do so. The language of Claim 1 is broader and not so limited. That the exemplary embodiments identify insulated gate transistors being used as switching devices provides no basis for imposing an extreme limitation on the scope of Claim 1. *Phillips*, 415 F.3d at 1323. Moreover, it makes little sense to import this limitation through the preamble phrase “controlling a drive of,” as that phrase has nothing to do with whether the insulated gate transistor being driven is operating as a switch or an amplifier.

Finally, there is no reason to construe the term “a drive of” in this preamble phrase as meaning “the voltage supplied *to the gate of*.” No such limitation is found in the claim language and to import it from the specification is improper. The patentee’s description of exemplary embodiments in the specification makes clear that the patentee knew how to limit the claim to driving *the gate* of an insulated gate transistor. *See, e.g.*, ’835 Patent at 4:14-15 (“the control output signal is supplied to the gate electrode of the transistor”; *id.* at 7:54-59 (“an output signal of a gate driver GD1 composed of a P channel MOS transistor 17 and a N channel MOS transistor 18 connected in series between the drive voltage VB and the reference potential VS is supplied as a control output signal S13 to the gate electrode of the transistor”). The patentee did not do so, and instead specifically used broader claim language that is not narrowly limited to controlling a drive of an insulated gate transistor *through its gate*.

D. “indicates a conduction of said insulated gate transistor” (Claim 1)

Complainant	Respondents	Staff
Plain and ordinary meaning, e.g., indicates that said insulated gate transistor is turned on	indicates that said insulated gate transistor is in the ON state	indicates that said insulated gate transistor is in the ON state

The meaning of this claim term is apparent on its face and there is no express lexicography

or disavowal in the intrinsic record that supports giving it a construction other than its plain and ordinary meaning. *Pacing Techs.*, 778 F.3d at 1024. Should the ALJ decide to give this term a specific construction, however, the better construction is Complainant’s. There is no reason to circumscribe the construction to a specific definition, as Respondents and Staff propose, rather than construe it as having its plain and ordinary meaning with an exemplary indication of its relative meaning (“e.g., indicates that said insulated gate transistor is turned on”). The concept of “conduction” in electrical circuits is commonly understood by skilled artisans, and there is no need to impose a specific definition on a well-understood term.

Respondents’ and Staff’s construction would introduce further ambiguity into the claim language by suggesting there must be a specific “ON state” condition in the insulated gate transistor. This term would itself require construction because it is ambiguous. The existence of an “ON state” is not a requirement in the claim language, and there is no need to impose an unclear, limiting addition to the claim language. Respondents and Staff rely on the inclusion of language referencing “the ON state” in the specification (e.g., Resps.’ Op. Br. at 30), but it is improper to import a limitation from the specification. Respondents’ and Staff’s construction of this term to require that a specific (and undefined) “ON state” must exist in the insulated gate transistor appears to be a further attempt to narrowly limit the scope of Claim 1 to insulated gate transistors being used as switching devices, and not amplifiers, which is unfounded. *See, e.g., Hill-Rom*, 755 F.3d at 1372-73 (“we do not import limitations from the specification into the claims”).

E. “significant” (Claims 1 and 2)

Complainant	Respondents	Staff
No construction necessary. To the extent a construction is necessary, then the plain and ordinary meaning, e.g., active	Plain meaning, <i>i.e.</i> large or important enough to have a meaningful effect, <i>e.g.</i> a HIGH potential state	active-high or active-low state indicating a condition is met

The term “significant” does not need any construction at all. Respondents’ and Staff’s constructions needlessly complicate a *one-word* term. There is no need for such complication.

1. Respondents’ new “dictionary” definition is complicated, unclear, and inaccurate.

Respondents’ construction has several problems. First, it demonstrates why using a dictionary (or multiple dictionaries) to try to define terms is disfavored. *See Phillips*, 415 F.3d at 1322 (citing *Liebscher v. Boothroyd*, 258 F.2d 948, 951 (C.C.P.A. 1958), which noted that “[i]ndiscriminate reliance on definitions found in dictionaries can often produce absurd results”). Respondents cite seven dictionaries totaling at least *seventeen* definitions (including six alone from The Chambers Dictionary). Then they appear to pick and choose words from different definitions to arrive at their own – eighteenth – definition. Their construction is closest to the one from Oxford English Dictionary, which is “large or important enough to have an effect or to be noticed.” But Respondents do not explain why they added the word “meaningful” to get “large or important enough to have a *meaningful* effect.” In fact, the word “meaningful” by itself could be a satisfactory construction for “significant,” as the “full of meaning” definition from The Chambers Dictionary shows.

As *Phillips* warned, extrinsic evidence such as dictionaries may be used only when it does not contradict the claims and specification. *Phillips*, 415 F.3d at 1322-23. And that is another problem with Respondents’ construction. There is nothing in the claims or specification confirming that a “significant” pulse signal must be either “large” or “important.” *Accord* Staff Op. Br. at 28 (“There is no requirement that a logic signal or its associated event must be sizeable or important for it to be made indicative of a logic state.”). And even if there were some support in the patent for these words, it is unknown how large or important the pulse signal must be. Respondents’ construction thus adds layers of uncertainty.

2. The phrase “indicating a condition is met” is unclear and inaccurate.

A major problem with the Staff’s construction is the inclusion of “indicating a condition is met.” Respondents seem to accept this aspect because they note that “the Staff’s construction accurately captures the concept of indicating a condition.” Resps.’ Op. Br. at 33. But even though the specification uses the term “significant condition,” the claims do not, so it is not proper to import that term into the construction. More importantly, the Staff’s use of the word “condition” is not the same as that of the specification. The specification’s phrase “be[ing] in a significant condition,” ’835 Patent at 6:14-15, differs from Staff’s proposed construction “indicating a condition is met.” For one thing, it is unclear what “condition” is being met in the Staff’s construction, whereas in the patent, “be[ing] in a significant condition” is a status of a signal, not the result of some other unspecified condition being met.

More importantly, the inclusion of “indicating a condition is met” is not at all accurate. When a signal is “significant” in the context of the patent, it is active and different from a default status. That is all. It does not need to occur as a result of some condition being met. A signal may be significant and thus causes something else to occur. For example, the claim recites that “when said second pulse signal becomes significant during a period when said first pulse signal is significant,” “a stop signal” is outputted from the logical circuit. It is the confluence of the second pulse signal being significant at the same time the first pulse signal is significant that causes the stop signal. In the end, to the extent some “condition” is part of a signal being significant, the claim language itself dictates what that condition is.

F. “clamped constantly” (Claim 2)

Complainant	Respondents	Staff
held at a constant voltage	clamped to a certain voltage for a determined period by a Miller effect	held at a constant voltage

The term “clamped constantly” is simple but Respondents’ proposed construction unnecessarily complicates it. The proper construction, as both Complainant and Staff submit, is “held at a constant voltage.”

1. The Miller effect is not a “critical part of the claimed invention” and thus should not be imported into the claim.

Respondents’ construction, predictably, imports a limitation from the specification that is not mentioned at all in the claims and, in fact, is mentioned at most only one time in the specification. Respondents acknowledge that the specification states, with respect to Fig. 5, “a voltage of the control output signal S3 is clamped to a certain voltage for a determined period by a *mirror effect*. ’835 Patent at 5:66 to 6:1; Resps.’ Op. Br. at 35. Respondents then state that “The phrase ‘mirror effect’ makes no sense without more context—it appears nowhere else in the ’835 patent and is not explained in any way.” Resps.’ Op. Br. at 35. But the same could be said about the phrase that Respondents want to use instead of “mirror effect” – “Miller effect” – “it appears nowhere else in the ’835 patent and is not explained in any way.” So, even if the phrase is supposed to be “Miller effect,” the fact that “it appears nowhere else in the ’835 patent and is not explained in any way,” Resps.’ Op. Br. at 35, means that it should not be used to limit the claims.

Respondents next make an even broader and unsupported statement to try to import this phrase into the claims: “The Miller effect is a *critical part* of the claimed invention.” *Id.* The words of the claim and the specification show how inaccurate this statement is. The term “Miller effect” (or “mirror effect”) does not appear at all in the claims, so Respondents’ statement that such effect is a “*critical part* of the claimed invention” is belied by the term’s absence. The term “Miller effect” or “mirror effect” occurs exactly once in the specification, but Respondents would have this tribunal believe that this lack of discussion is more important than, for example, a “control output signal,” which appears over 90 times in the specification and claims, or “significant,” which

appears over 25 times in the specification and claims.

Because the '835 Patent is bereft of any explanation of this “*critical part*” of the claimed invention,” Respondents spend *two-and-a-half pages* in their brief explaining it. Resps.’ Op. Br. at 35-37. They also cite to a one-page, undated paper entitled, “Origin of the Miller Effect,” but do not cite anything technical from that page or explain how that page is relevant to the '835 Patent. *Id.* at 36 (citing Ex. 15). That one page cites to another paper by John Miller (perhaps the discoverer of the Miller effect?), but Respondents chose not to produce that paper nor explain its contents. And while Respondents spent much time and energy in their brief explaining this technical topic, they did not use an expert to assist in explaining what is apparently a very technical phenomenon, which leads the reader to wonder whether any of the attorney explanation is correct.

Moreover, all of this is extrinsic evidence, which the Federal Circuit says cannot be used to “contradict claim meaning that is unambiguous in light of the intrinsic evidence.” *Phillips*, 415 F.3d at 1324. But Respondents are doing just that – using two-and-a-half pages of attorney argument to try to explain a two-word claim term that uses common words (“clamped constantly”) and is unambiguous in its lack of recitation of any effect (much less a Miller or a mirror effect). This tribunal should not approve of such tactics.

In addition, Respondents point to signal S13 in Fig. 9 as another example of this Miller effect, but neglect to state that the specification does not describe that signal in terms of the Miller (or mirror) effect. *Id.* at 35 (ignoring '835 Patent at 9:36-37 (“when the control output signal S13 is clamped to a constant voltage”) and 10:46-47 (“the voltage begins to increase after passing the clamp period of the control output signal S13”). So, the patent left open clamping due to something other than the Miller or mirror effect.

Respondents also ignore other uses of the word “clamp” in the specification. For example,

the specification describes “clamping the drive voltage VCC to a desired voltage with employing a zener voltage characteristic of the zener diode ZD.” ’835 Patent at 4:47-49. Thus, even assuming some clamping is due to the Miller effect, the specification conveys that clamping a voltage may also be performed using a zener diode. Respondents’ attempt to limit “clamping” to a Miller effect is thus further contradicted by the specification.

2. The importation of a “determined period” limitation is unnecessary because the claim itself recites such a period.

The rest of Respondents’ construction, “for a determined period,” is also problematic. That phrase is unnecessary because the claim itself recites how long the voltage is clamped:

2. The semiconductor device according to claim 1, wherein

said predetermined period when said first pulse signal is significant is set on a basis of *a period when a voltage of said control output signal is clamped constantly* when said insulated gate transistor normally operates.

The claim mentions two periods – “said predetermined period” and “a period when a voltage of said control output signal is clamped constantly.” The Respondents’ addition of “for a determined period” is unnecessary and confusing.

G. “control output signal” (Claim 1)

Complainant	Respondents	Staff
No construction necessary. To the extent a construction is necessary, then the plain and ordinary meaning, e.g., output signal that is controlling an insulated gate transistor	signal supplied to the gate of an insulated gate transistor to switch the transistor between ON and OFF states	signal supplied to the gate of an insulated gate transistor to switch the transistor between ON and OFF states

The term “control output signal” does not need any construction at all because the claim fully defines the term. The Respondents’ and the Staff’s proposed constructions again needlessly complicate a *three-word* term and turn it into a *nineteen-word* behemoth. There is no need for such complication.

1. The “control output signal” does not have to be “supplied to the gate of an insulated gate transistor.”

There are several problems with the Respondents’ and Staff’s construction. First, the “control output signal” does not have to be “supplied to the gate of an insulated gate transistor.” The claim does not require this limitation – in fact, the only mention of the word “gate” in the claims is within the phrase “insulated gate transistor” – nothing in the claim suggests or requires that the control output signal be “supplied to the gate” of the insulated gate transistor.

The Staff seeks to add the limitation “supplied to the gate of an insulated gate transistor” to “specify[] *how* the signal is ‘controlling’ the transistor.” Staff Op. Br. at 33 (emphasis in original). This addition is unnecessary, because, as described in Complainant’s opening brief, the claim language itself defines the qualities of the “control output signal.”

- it is generated on the basis of a control input signal;
- it is outputted by a driver;
- it is detected by a short-circuit protection circuit;
- it may be stopped by the driver under certain conditions; and
- it has a detecting voltage.

Compl. Br. at 19. Anything else added to define the “control output signal” is improper importation of limitations from the specification or elsewhere. *Phillips*, 415 F.3d at 1323; *Computer Docking Station*, 519 F.3d at 1374. The Staff should adhere to the words of its brief elsewhere: “If the patentee had wanted to limit the claims to [how the signal is ‘controlling’ the transistor], they could have done so using the same specific terminology for [such control] that they use in the patent specification. But they did not do so.” Staff Op. Br. at 18-19 (citation omitted).

Second, Staff labels the term “control output signal” as a “coined term,” and then implies that some different claim construction standard applies to such a term. Staff Op. Br. at 33. Staff specifically cites to *Iridescent Networks, Inc. v. AT&T Mobility, LLC*, 933 F.3d 1345 (Fed. Cir. 2019), which is entirely inapposite. That case construed the term “high quality of service

connection,” and the issue was whether the word “high,” which is a “term of degree,” made the term unclear. 933 F.3d at 1350-51 (agreeing with the district court that “the claim language is not sufficiently clear on its face to provide guidance to a person of ordinary skill in the art as to the meaning of the term ‘high quality of service connection’”). The Federal Circuit thus looked to clarify what the term “high” meant in the context of a quality of service connection and construed it to mean “a connection that assures connection speed of at least approximately *one megabit per second*” with other specific requirements. *Id.* at 1354 (emphasis added). Thus, the Federal Circuit needed to define the term “high” with reference to a specific speed. Nothing like what was at issue in *Iridescent* exists here with respect to the term “control output signal.” In short, even if the phrase “control output signal” were a “coined term” (which it is not), it is not interpreted differently from other terms. That means that the plain and ordinary meaning controls unless there are some extraordinary circumstances, such as lexicography or disavowal, circumstances that do not exist here. *Pacing Techs.*, 778 F.3d at 1024; *see also Massachusetts Inst. of Tech. v. Shire Pharms., Inc.*, 839 F.3d 1111, 1118 (Fed. Cir. 2016) (“There is a heavy presumption that claim terms are to be given their ordinary and customary meaning.”).

Third, as Staff and Respondents appear to agree, the purpose of the invention in the ’835 Patent is to use the “control output signal” to control the insulated gate transistor, which means let the insulated gate transistor operate according to a control input signal if in a normal state and stop the insulated gate transistor from operating if in a short-circuit state. *See, e.g.*, ’835 Patent, Fig. 2 (showing S3 working in its “normal state” and following the control input signal, while S3 is stopped before the control input signal indicates it otherwise would when there is a short circuit). For example, Staff quotes the specification: “the control output signal is also influenced when that transistor is short-circuited, and a signal waveform different from that in a normal operating state

occurs.” Staff Op. Br. at 9 (quoting ’835 Patent at 4:18-20). Respondents quote a different part of the specification:

[The] semiconductor device controls a drive of an insulated gate transistor by generating a control output signal on a basis of a control input signal, and includes a driver outputting the control output signal and a short-circuit protection circuit detecting the control output signal and controlling and forcing the driver to stop the control output signal when a detecting voltage of the control output signal exceeds a predetermined reference voltage before a predetermined period passes after the control output signal indicates a conduction of the insulated gate transistor.

Resps.’ Op. Br. at 8 (quoting ’835 Patent at 1:52-62). In neither of these passages does the specification say anything about the “control output signal” being “supplied to the gate of an insulated gate transistor.”⁴ That underlined language is not necessary to understanding or implementing the invention.

2. The “control output signal” does not have to “switch the transistor between ON and OFF states.”

Next, the “control output signal” does not have to “switch the transistor between ON and OFF states.” Again, the claim does not require this limitation – there is no mention in the claims about “switch” or “switching” and certainly nothing about an “ON state” or an “OFF state.” Thus, nothing in the claims suggests or requires that the control output signal “switch the transistor between ON and OFF states.” This is pure, unabashed, improper importation of limitations from the specification into the claims. *Phillips*, 415 F.3d at 1320. *See supra* at 12-13.

H. “short-circuit protection circuit” (Claim 1)

Complainant	Respondents	Staff
No construction necessary. To the extent a construction is	circuit that performs short-circuit protection without a	circuit that performs short-circuit protection without

⁴ In fact, on page 8 of the Respondents’ brief, Respondents go out of their way to add after “control output signal” the phrase “that controls the gate of” the insulated gate transistor, a phrase that does not appear in the specification or claims, in paraphrasing the above-quoted paragraph. Such litigation-induced language does not help the ALJ arrive at the correct construction.

necessary, then the plain and ordinary meaning, e.g., circuit that performs function of short-circuit protection	shunt resistor	a shunt resistor
--	----------------	------------------

The term “short-circuit protection circuit” does not need construction because the claim fully defines the term. The Staff’s and Respondents’ proposed construction again imports a limitation, this time from the Patent’s title. Such importation is improper. Moreover, the Staff’s and Respondents’ proposed construction admittedly eschews the ordinary and customary meaning of the claim term, which is a difficult burden to overcome.

1. Respondents and Staff have an extremely difficult burden to overcome.

“There is a heavy presumption that claim terms are to be given their ordinary and customary meaning.” *MIT*, 839 F.3d at 1118. A party asserting otherwise has the “burden of demonstrating the existence of a ‘clear and unmistakable’ disclaimer that would have been evident to one skilled in the art.” *Id.* at 1122. Here, neither Respondents nor Staff argues that “circuit that performs short-circuit protection without a shunt resistor” is the ordinary and customary meaning of “short-circuit protection circuit.” Thus, they need to argue that the patentee “clear[ly] and unmistakabl[y]” disclaimed the ordinary and customary meaning. *Id.* For the reasons that follow, neither Respondents nor Staff has satisfied their heavy burden.

2. Neither Respondents nor Staff argue the language of the claims.

The “bedrock principle” of patent law is that “the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Phillips*, 415 F.3d at 1312 (internal quotation marks omitted). The claims are “of primary importance, in the effort to ascertain precisely what it is that is patented.” *Id.* (citing *Merrill v. Yeomans*, 94 U.S. 568, 570 (1876)).

Here, neither Respondents nor Staff argue the actual language of the claims to support their proposed construction. Nor can they. The words “shunt” or “resistor” do not appear in the claims.

As stated in Complainant’s opening brief, the claim itself includes everything that a “short-circuit protection circuit” is and does. The “short-circuit protection circuit” performs the following functions: (1) detecting a control output signal; and (2) controlling and forcing a driver to stop the control output signal; and includes the following components: (A) a pulse generation circuit; (B) a comparator; and (C) a logical circuit. Compl. Op. Br. at 21. Respondents and Staff ignore all this language and concentrate on the importation of one concept from the specification (the absence of a shunt resistor) to the exclusion of everything else.

3. The patent’s title is irrelevant to claim construction.

The Respondents’ and Staff’s proposed construction would import the words “without a shunt resistor” from the title into the claims, which is improper. As Complainant argued in its Opening Brief, reading a limitation into a claim from the title is just as improper as it is from the patent specification. Compl. Op. Br. at 22 (citing *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1312 (Fed. Cir. 1999) (holding that if it is improper to “read limitations into the claims from the specification that are not found in the claims themselves, then [it is improper to] read limitations into the claims from the patent title”)). Even more so, the Federal Circuit has held that the title is “near[ly] irrelevan[t]” to claim construction. *Pitney Bowes*, 182 F.3d at 1312.

Staff argues that because the examiner requested a new title “*that is indicative of the invention to which the claims are directed*,” such an amendment helps Staff overcome its burden to show clear disclaimer. Staff Op. Br. at 35 (emphasis in original); *see also* Resps.’ Op. Br. at 43 n.5 (arguing that the patentee’s title change during prosecution “demonstrate[s] the intent to seek a narrow invention from the USPTO”). But a title amendment was precisely what occurred in *Pitney Bowes*, and the Federal Circuit rejected that same argument. In *Pitney Bowes*, the examiner amended the title of the patent to change “spots” to “light spots,” leading the district court to construe the phrase “spots of different sizes” to “different sized spots of light.” 182 F.3d at 1304.

The Court reversed, emphasizing the “near irrelevancy of the patent title to claim construction” as well as “the unimportance of a patent’s title to claim construction.” *Id.* at 1312-13.

What happened in *Pitney Bowes* is highly relevant here. The ’835 Patent was filed with the title, “Semiconductor Device and Semiconductor Device Module.” Just like in *Pitney Bowes*, the Examiner thought the title was “not descriptive enough” and requested a new title “indicative of the invention” and indicating “short-circuit protection.” Staff Ex. 10 (’835 FH, 7/7/2006 Office Action) at 4. The patentee complied, but contrary to Staff’s argument regarding the relevance of such a title amendment and Respondents’ statement that such compliance “demonstrate[d] the intent to seek a narrow invention from the USPTO,” the amendment was made solely to satisfy an objection issued by the Examiner for patent “classification purposes.” *Pitney Bowes*, 182 F.3d at 1312. And here, just as in *Pitney Bowes*, the patent title is “near[ly] irrelevan[t]” and “unimportant[t] . . . to claim construction.” *Id.*

4. There was no clear and unmistakable disavowal of claim scope.

Respondents argue that statements made in the specification evince a “clear and unambiguous disclaimer of conventional circuits. Resps.’ Op. Br. at 42; *accord* Staff Op. Br. at 35-37. They cite various statements in the specification that they say “disparage” the use of a shunt resistor. *See, e.g.*, Resps.’ Op. Br. at 42. While using a shunt resistor may be disfavored because it would make the module larger, *see, e.g.*, ’835 Patent at 7:34-35, there is nothing in the specification that reveals that a shunt resistor cannot be used or that its use would make the invention inoperable. The specification calls a shunt resistor “not necessary,” *id.* at 7:33, but the specification does not say that a shunt resistor is “prohibited” or should be eliminated. And the Staff’s statement that the “sole purported advance over the prior art is a switching device that includes short-circuit protection *without a shunt resistor*,” Staff Op. Br. at 35 (emphasis in original), is contradicted by

the actual “prior art” record – the prosecution history. The examiner did not refer to the absence of a shunt resistor in allowing the claims. *See* Diehl Decl., Ex. 3 (Non-Final Rejection); *id.*, Ex. 4 (Notice of Allowance). Moreover, the Staff itself called the lack of a shunt resistor merely an “advantage” to “be[] able to make the device smaller.” Staff Op. Br. at 36. Touting an advantage does not constitute a “clear and unmistakable” disavowal of claim scope. *MIT*, 839 F.3d at 1122; *see also Brookhill-Wilk I, LLC. v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1301 (Fed. Cir. 2003) (noting that “[a]dvantages described in the body of the specification, if not included in the claims, are not per se limitations to the claimed invention”).⁵ There was no “clear and unmistakable disavowal of” a circuit with a shunt resistor here. Respondents and Staff have not overcome the heavy presumption against disavowal. *MIT*, 839 F.3d at 1118.

III. CONCLUSION

For the reasons explained above, Complainant respectfully asks the ALJ to adopt each of the Complainant’s proposed constructions.

Dated: August 19, 2022

Respectfully Submitted,

By: /s/ Matthew R. Berry
Matthew R. Berry
Andres Healy

⁵ Cases cited by Respondents and Staff are easily distinguished. In *Poly-Am., L.P. v. API Indus., Inc.*, 839 F.3d 1131 (Fed. Cir. 2016), Resps.’ Op. Br. at 42, 45-46, involving plastic trash bags, the issue was whether the term “short seal” included that the seal “extend inwardly to narrow the bag’s upper opening.” *Id.* at 1132. The court found that disavowal occurred because (1) the other two independent claims recited a narrowed opening and (2) during prosecution, the patentee specifically distinguished the prior art based on a narrowed opening and the examiner’s notice of allowance specifically mentioned a narrowed opening as distinguishing over the prior art. *Id.* at 1134-35. In contrast, here none of the claims recites or contemplates not having (or having) a shunt resistor. In *Ruckus Wireless, Inc. v. Innovative Wireless Sols., LLC*, 824 F.3d 999 (Fed. Cir. 2016), Staff Op. Br. at 36, the court limited the term “communications path” to exclude wireless communications where the patent included claims that specifically mentioned wires. Here, none of the claims mentions the use a shunt resistor.

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

**Before the Honorable Monica Bhattacharyya
Administrative Law Judge**

In the Matter of

**CERTAIN POWER SEMICONDUCTORS,
AND MOBILE DEVICES AND
COMPUTERS CONTAINING SAME**

Investigation No. 337-TA-1308

SUPPLEMENTAL DECLARATION OF KEMPER P. DIEHL

I, Kemper P. Diehl, hereby declare as follows:

1. I am an attorney in the law firm of Susman Godfrey, LLP. I am counsel for Complainant Arigna Technology Limited (“Arigna”) in the above-referenced Investigation. I have personal knowledge of the matters set forth herein. If called as a witness, I could and would testify competently thereto.

2. I submit this supplemental declaration in support of Arigna’s Rebuttal Claim Construction Brief.

3. Attached as **Exhibit 5** is a true and correct copy of excerpts from the Modern Dictionary of Electronics, Sixth Edition (1997).

I declare under penalty of perjury that the foregoing is true and correct.

Signed this 19th day of August, 2022, at Seattle, Washington.

/s/ Kemper P. Diehl
Kemper P. Diehl

EXHIBIT 5

**MODERN
DICTIONARY
of
ELECTRONICS**

**SIXTH EDITION
REVISED AND UPDATED**

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Apple Inc. v. Arigna Technology Ltd
IPR2023-00453
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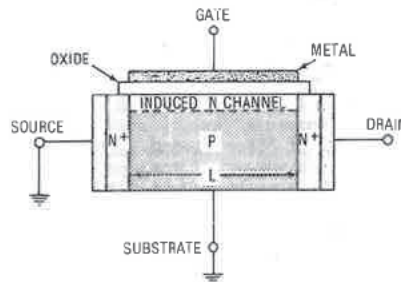
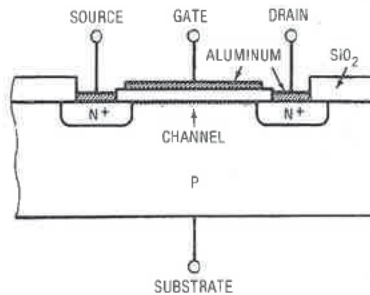
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silicon-oxide dielectric layer and a metal top electrode are deposited on a conducting semiconductor region that acts as the bottom electrode.

MOS device—Semiconductor component (typically, in an IC) formed by metal-oxide semiconductor process. In an MOS device, current can flow in either of two directions, whereas in a bipolar semiconductor current flows in only one direction.

MOSFET — Abbreviation for metal-oxide-semiconductor field-effect transistor.



MOSFET (n-channel enhancement type).

MOS insulated-gate field-effect transistor—A semiconductor device consisting of two electrodes (source and drain) diffused into a silicon substrate and separated by a finite space, thus forming a majority-carrier conducting channel. A metal electrode (gate) is placed above and insulated from the channel.

MOS monolithic IC—A single-chip IC, consisting largely of interconnected unipolar active-device elements or MOS field-effect devices. This class of circuits results in higher equivalent parts density.

most significant bit—Abbreviated msb. 1. The highest-order bit or the bit with the greatest weight. 2. The bit in the leftmost position.

most significant digit — Abbreviated msd. 1. Number at the extreme left of a

group of numbers. Example, 6937. Digit 6 is the msd. Does not apply to number 0 when in the msd position. 2. In a binary number, it is the digit with the highest weighting.

mother—In disc recording, a mold electroformed from the master.

motherboard—1. A relatively large piece of insulating material on which components, modules, or other electronic subassemblies are mounted and interconnections made by welding, soldering, or other means, using point-to-point or matrix wire, or circuitry fabricated integrally with the board. 2. A circuit board that accommodates plug-in cards or daughterboards and makes appropriate interconnecting terminations between them. 3. A printed-circuit board to which one or more other circuit boards may be assembled and connected. 4. The main pc board equipped with female connectors in which all functional boards are inserted. It carries the system buses. 5. Also see Backplane.

mother crystal — The quartz crystal found in nature. It has the characteristic geometric design of a crystal (i.e., flat faces at definite angles to each other), but all or some of the faces may be worn because of abrasion with stones or other objects.

motional feedback — Correction of a speaker's response by feeding information about its motion back to the amplifier. The amplifier then compares the speaker's motions with its own output and changes this output so as to counteract any changes (distortions) created by the speaker. Such speakers usually have special "servo" amplifiers built in, though a few can be used with other amplifiers if these are modified.

motional impedance — Also called loaded motional impedance. The complex remainder after the blocked impedance of a transducer has been subtracted from the loaded impedance.

motion detector — A device used in security systems which reacts to any movement on a cctv monitor by automatically setting off an alarm when the monitor is not manned.

motion frequency — 1. The natural frequency of a servo system. 2. The frequency at which a given servo tends to oscillate.

motion-picture pickup — A television camera or technique for televising scenes directly from motion-picture film.

motion-sensing — A type of tape transport in which certain actions which could break or spill the tape are prevented or delayed until the instant the tape has come to a stop or reached a speed which allows the action to take place safely.

motion sensor—A sensor which responds

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

**Before the Honorable Monica Bhattacharyya
Administrative Law Judge**

In the Matter of

**CERTAIN POWER SEMICONDUCTORS,
AND MOBILE DEVICES AND
COMPUTERS CONTAINING SAME**

Inv. No. 337-TA-1308

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing has been served on August 19, 2022, as indicated, on the following:

The Honorable Lisa R. Barton Secretary to the Commission U.S. International Trade Commission 500 E. Street, S.W., Room 112 Washington, D.C. 20436	☐ First Class Mail ☐ Hand Delivery ☐ Overnight Delivery ☒ EDIS ☐ Email
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/s/ Michelle Wimmer

Michelle Wimmer