

**THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

OPTICURRENT, LLC,

*Plaintiffs,*

v.

POWER INTEGRATIONS, INC.,

*Defendant.*

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CASE NO. 2:16-CV-325

**MEMORANDUM OPINION AND ORDER**

Before the Court is the opening claim construction brief of Plaintiff Opticurrent, LLC. (“Plaintiff”) (Dkt. No. 44, filed on January 20, 2017), the response of Defendant Power Integrations, Inc. (“Defendant”) (Dkt. No. 48, filed on February 3, 2017), and the reply of Plaintiff (Dkt. No. 49, filed on February 10, 2017). The Court held a claim construction hearing on March 28, 2017. Having considered the arguments and evidence presented by the parties at the hearing and in their claim construction briefing, the Court issues this Claim Construction Order.

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## I. BACKGROUND

Plaintiff brings suit alleging infringement of United States Patent No. 6,958,623 (“the ’623 patent” or “patent-in-suit”) by the Defendant.

The application leading to the ’623 patent was filed on January 7, 2004, but is based on a PCT application filed on January 18, 2002, which claims priority to U.S. provisional patent application 60/262,755, filed on January 19, 2001. The ’623 patent issued on October 25, 2005 and is entitled “Three Terminal Noninverting Transistor Switch.” In general, the ’623 patent is directed to a three terminal noninverting switch that (among other items) is stated to reduce current leakage during high input signal voltages. The Abstract of the ’623 patent states:

A noninverting transistor switch having only a first terminal, a second terminal and a third terminal includes a transistor connected to the second and third terminals, the transistor having an on switching state in which current is able to pass between the second and third terminals and an off switching state in which current is interrupted from passing between the second and third terminals. The transistor switch also includes a voltage stabilizer connected to the second and third terminals. The transistor switch further includes a CMOS inverter connected to the first terminal, the second terminal, the transistor and the voltage stabilizer. In use, the CMOS inverter interrupts the passing of current between the voltage stabilizer and the second terminal when the transistor is in its off switching state.

Claim 1 of the ’623 patent is shown below:

1. A noninverting transistor switch having only three terminals, said three terminals being a first terminal, a second terminal and a third terminal, said noninverting transistor switch comprising:

(a) a transistor connected to the second and third terminals, said transistor having an on switching state in which current is able pass between the second and third terminals and an off switching state in which current is interrupted from passing between the second and third terminals,

(b) a voltage stabilizer connected to the second and third terminals, and

(c) a complementary metal oxide semiconductor (CMOS) inverter connected to the first terminal, the second terminal, said transistor and said voltage stabilizer, said CMOS inverter interrupting the passing of current between said voltage stabilizer and the second terminal when said transistor is in its off switching state.

## II. LEGAL PRINCIPLES

This Court's claim construction analysis is guided by the Federal Circuit's decision in *Phillips v. AWH Corporation*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the court reiterated that "the claims of a patent define the invention to which the patentee is entitled the right to exclude." 415 F.3d at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). "The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Id.* at 1316 (quoting *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998)).

In claim construction, patent claims are generally given their ordinary and customary meaning, which "is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1312-13. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention and that patents are addressed to, and intended to be read by, others skilled in the particular art. *Id.*

Despite the importance of claim terms, *Phillips* made clear that "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.* The written description set forth in the specification, for example, "may act as a sort of dictionary, which explains the invention and may define terms used in the claims." *Markman*, 52 F.3d at 979. Thus, as the *Phillips* court emphasized, the specification is "the primary basis for construing the claims." *Phillips*, 415 F.3d at 1314-17. However, it is the claims, not the specification, which set forth the limits of the patentee's invention. Otherwise, "there would

be no need for claims.” *SRI Int’l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc).

The prosecution history also plays an important role in claim interpretation as intrinsic evidence that is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims. *Phillips*, 415 F.3d at 1314–17; *see also Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004) (noting that “a patentee’s statements during prosecution, whether relied on by the examiner or not, are relevant to claim interpretation”). In this sense, the prosecution history helps to demonstrate how the inventor and the United States Patent and Trademark Office (“PTO”) understood the patent. *Id.* at 1317. Because the prosecution history, however, “represents an ongoing negotiation between the PTO and the applicant,” it may sometimes lack the clarity of the specification and thus be less useful in claim construction. *Id.*

Courts are also permitted to rely on extrinsic evidence, such as “expert and inventor testimony, dictionaries, and learned treatises,” *id.* (quoting *Markman*, 52 F.3d at 980), but *Phillips* rejected any claim construction approach that sacrifices the intrinsic record in favor of extrinsic evidence. *Id.* at 1319. Instead, the court assigned extrinsic evidence, such as dictionaries, a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula or particular sequence of steps. *Id.* at 1323–25. Rather, *Phillips* held that a court must attach the appropriate weight to the sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant. “In cases where . . . subsidiary facts are in dispute, courts will need to make subsidiary factual findings about [the] extrinsic evidence. These are the ‘evidentiary underpinnings’ of claim construction [discussed] in *Markman*, and this subsidiary factfinding must

be reviewed for clear error on appeal.” *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015).

The Supreme Court of the United States has “read [35 U.S.C.] § 112, ¶ 2 to require that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). “A determination of claim indefiniteness is a legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (citations and internal quotation marks omitted), *abrogated on other grounds by Nautilus*, 134 S. Ct. 2120.

### III. CONSTRUCTION OF AGREED TERMS

The parties have not agreed upon any terms.

### IV. CONSTRUCTION OF DISPUTED TERMS

The parties’ positions and the Court’s analysis as to the disputed terms are presented below.

#### A. “terminal”

<u>Disputed Term</u>	<u>Plaintiff’s Proposed Construction</u>	<u>Defendant’s Proposed Construction</u>
“terminal”	“a point in which two or more wires are connected together”	“a point in the noninverting transistor switch that can connect to a circuit external to the noninverting transistor switch”

The disputed term “terminal” appears in at least claim 1 of the ’623 patent.

#### (1) The Parties’ Positions

Plaintiff submits that the disputed term “terminal” is a simple, broad term that does not deviate from the ordinary meaning of the term. (*See, e.g.*, Dkt. No. 44 at 9-12.) To this end,

Plaintiff argues that the use of the term in the patent is consistent with technical and dictionary definitions. (*Id.*) Plaintiff also argues that Defendant’s proposed construction adds an unnecessary limitation that the switch connects to a circuit “external” to the switch. (*Id.*) In support thereof, Plaintiff asserts that there is nothing in the ’623 patent that unmistakably restricts the term to this limitation and reading any limitations from preferred embodiments is contrary to claim construction rules. (*Id.*)

Defendant responds by asserting that Plaintiff’s proposed construction directly contradicts the intrinsic evidence. (*See, e.g.*, Dkt. No. 48 at 7-12.) Defendant argues that its proposed construction, on the other hand, is supported by both the patent’s specification and the extrinsic evidence. (*Id.*) According to Defendant, despite the fact that each of the embodiments has five or more connections where two or more wires “connect together,” each embodiment has “only three terminals.” (*Id.* at 8-10.) Defendant argues that, as used in the ’623 patent, a “terminal” refers only to an externally accessible connection point and not to internal circuit connection points. (*Id.* at 11.) Defendant also relies upon a technical definition that requires an external connection. (*Id.*) Defendant argues that although Plaintiff’s cited definitions are not wrong, per se, they are incomplete in the context of the dispute. (*Id.* at 11-12.)

Plaintiff replies by arguing that the generic definition of “terminal” is not at issue. Rather, according to Plaintiff, the issue here is the difference between devices having only “three” terminals and a four terminal switch. (*See, e.g.*, Dkt. No. 49 at 4.)

## **(2) Analysis**

The central dispute here centers on whether a “terminal” can be any point of connection in a circuit, including those circuit connections which are wholly internal, as Plaintiff contends, or if the patent limits a “terminal” to only external connections, as Defendant contends.

The relevant claim language is not particularly helpful, nor is there any argument that the prosecution history is relevant to this term. As to the basic meaning of the term itself, the Court finds the general meaning of the term “terminal” means an end or extremity.

The Court finds helpful guidance as to the construction of the term “terminal” in the specification. Here, the specification’s usage of the word “terminal” implies *only* external connections. For example, FIG. 2 shows first terminal 113, second terminal 115, and third terminal 117. (*See, e.g.*, FIG. 2; col. 5, ll. 16-19.) However, FIG. 2 also shows other points in which two wires are connected (such as connection/point 127) which are *not* referred to as a “terminal.” Similar embodiments are described in relation to other figures, such as FIGs. 5 and 6. Thus, the specification’s treatment of the term “terminal” suggests a narrower construction than merely “any point in which two or more wires are connected together.” Such treatment of the term “terminal” in the specification is consistent with its usage in the claims, as both the specification and the claims refer to a particular switch that has a first, second, and third terminal.

Both parties also rely upon extrinsic evidence. Plaintiff relies on two definitions (Dkt. No. 44 at 11), recited below:

- terminal – 2. “In electronics, a point that can be physically linked to something else, usually by a wire, to form an electrical connection.” Microsoft Computer Dictionary, Fourth Edition, 1999.
- terminal (3) (packaging machinery) “A point of connection in an electric circuit.” IEEE Standard Dictionary, Sixth Edition, 1996.



Defendant relies on a separate definition (Dkt. No. 48 at 11) from the IEEE Standard Dictionary relied upon by Plaintiff that defines terminal (in the context of power and distribution transformers) as a “conducting element of an equipment or a circuit intended for connection to an external conductor.”

The Court finds that, on balance, the intrinsic and extrinsic evidence supports the Defendant’s arguments. The Court finds that referring to any point in which two or more wires are simply connected would impermissibly broaden the meaning of “terminal” as used in the ’623 patent. The Court thus rejects the Plaintiff’s arguments to the contrary. Nevertheless, while the Court generally agrees with the Defendant’s arguments that the terminal connects the circuit to an external point, Defendant’s construction is overly complicated and adds limitations that may or may not be correct (such as requiring a connection to an external “circuit” as opposed to just an external connection).

Accordingly, the Court hereby construes **“terminal”** to mean **“an external connection point.”**

**B. “A noninverting transistor switch having only three terminals”**

<u><b>Disputed Term</b></u>	<u><b>Plaintiff’s Proposed Construction</b></u>	<u><b>Defendant’s Proposed Construction</b></u>
“A noninverting transistor switch having only three terminals”	“A noninverting transistor switch having a first terminal connected to an input signal, a second terminal connected to ground and a third terminal connected to a load.”	The preamble is limiting “A noninverting transistor switch having no more than three terminals”

The disputed term “a noninverting transistor switch having only three terminals” appears in at least claim 1 of the ’623 patent.

**(1) The Parties’ Positions**

Plaintiff submits that the disputed term is a “term of art” and applies to structures having a specific arrangement of terminal connections. (*See, e.g.*, Dkt. No. 44 at 16-18.) At the very least, Plaintiff argues that the patentee acted as its own lexicographer regarding to this term. (*Id.* at 17-18.) Plaintiff argues that a three terminal, noninverting switch may technically have more than three terminals, but it has to have at least three terminals in a particular arrangement. (*Id.*) Plaintiff further argues that the specification provides an example of a three terminal switch which may have a fourth pin, and points out that this fourth pin does not negate the fact that the switch remains a three terminal switch. (*Id.*) Thus, Plaintiff asserts that Defendant’s construction would be contrary to the specification. (*Id.* at 18-19.)

Defendant responds that both sides agree that the preamble is limiting and the language clearly states “only three terminals.” (*See, e.g.*, Dkt. No. 48 at 20-25.) Defendant argues that Plaintiff’s contention that the terminal may have four or more terminals is wrong based upon the law, the intrinsic record, and the plain meaning of the term. (*Id.*) Defendant argues that Plaintiff’s contention that it acted as its own lexicographer and defined “having only three terminals” to mean “having three or more terminals” is nonsensical. (*Id.* at 20.) Additionally, Defendant argues that non-inverting transistor switches with more than three terminals were expressly disavowed in the specification. (*Id.* at 20-22.) According to Defendant, there is no support in the ’623 patent that the words “only three terminals” can mean “more than three terminals.” (*Id.* at 24.)

Plaintiff replies that the inclusion of a fourth pin, or terminal, does not necessarily transform the switch from a three terminal, noninverting switch to a four terminal, noninverting switch. (*See, e.g.*, Dkt. No. 49 at 2-6.) Plaintiff argues that the realm of “only three terminals” pertains to a comparison of switches with three specific terminals (and the lack of a fourth specific terminal) to switches with four specific terminals including a fourth terminal connected to an

external power supply. (*Id.* at 2.) Additionally, Plaintiff argues that for the '623 patent it is clear that a switch having “only” three terminals means that it does not have or require a fourth terminal connected to an external power supply. (*Id.* at 5.) Finally, Plaintiff argues that a switch that does not have a fourth terminal that is connected to an external power supply can have many additional terminals so long as one of them is not connected to an external power supply. (*Id.*)

## **(2) Analysis**

The parties' primary dispute is whether the phrase “having only three terminals” is limited to just three terminals or could apply to a switch with four (or more) terminals. More particularly, the issue is whether a switch with a fourth terminal connected to a power supply that is optional or unnecessary would fall within the scope of the claim language.

The claim language is clear – the preamble of claim 1 clearly requires “[a] noninverting transistor switch **having only three terminals**, said three terminals being a first terminal, a second terminal and a third terminal, ...” (emphasis added). Both parties agree that the preamble is limiting. The Court must give affect to the language used by the patentee.

The specification is consistent with the claim language. The specification contrasts three terminal switches to four terminal switches, a distinction that is apparently well known in the art. For example:

Noninverting transistor switches typically comprise at least four terminals, one terminal being connected to an input signal, another terminal being connected to a load, another terminal being connected to ground and the **last terminal being connected to a power supply in order to provide a “second” inversion for the switch.**

Noninverting transistor switches which comprise only three terminals are well known and widely used in the art. Noninverting transistor switches which comprise only three terminals include a first terminal connected to an input signal, a second terminal connected to ground and a third terminal connected to a load. **Noninverting transistor switches which comprise only three terminals do not**

**require a fourth terminal connected to a power supply**, thereby rendering noninverting transistor switches which comprise only three terminals more desirable than noninverting transistor switches which comprise at least four terminals.

(’623 patent, col. 1, ll. 38-55 (emphasis added).) Thus, the ’623 patent expressly states that noninverting transistor switches that comprise “only three terminals” do not require a fourth terminal connected to a power supply. (*Id.*) To make it even more clear, the specification again states that a three terminal noninverting transistor switch may have a fourth terminal/pin and still be considered a three terminal switch:

For example, the scope of the present invention also includes three terminal noninverting transistor switches that use a “fourth” pin (power supply) for normal operation (and potentially even for enhancement purposes) but still operate (for example as a “fail-safe” feature) without power applied to this “fourth” power pin.

(’623 patent, col. 14, ll. 42-47.) It is clear from the ’623 patent that the distinction between three and four terminal switches – at least in the context of the ’623 patent – is the connection to a power supply by a fourth terminal. The language used in the specification (“only three terminals”) is similarly used in the claims. Thus, the Court finds that the claims are consistent with the specification.

Thus, while the preamble claim language – by itself – implies that the switch has only three terminals (no more, no less), the specification makes it clear that by the claim language the patentee is distinguishing traditional three terminal switches from four terminal switches, and is claiming the traditional understanding of a three terminal switch. Further, it is clear from the specification that a three terminal switch is a switch that does not have a fourth terminal connected to a power supply.

On balance, the Court finds that the claim language is consistent with the specification. The Court finds that while the specification repeatedly distinguished four terminal switches from

three terminal switches, it did so in the context of the fourth terminal being connected to a power supply. The Court rejects Defendant's arguments to the contrary, and in particular, the Court rejects Defendant's arguments as being inconsistent with the specification. Further, Defendant's construction of "no more than three" would allow a switch to have one or two terminals, and is contrary to the express language of the preamble requiring only three terminals as well as the specification. Thus, Defendant's construction is wrong on its face and based upon the intrinsic record.

Plaintiff's construction, however, does not resolve the dispute between the parties. First, while the Court does not necessarily disagree that the first, second, and third terminals as claimed may be connected to the input signal, ground, and load, respectively, as described in the specification, the claims do not limit the structure specifically to that configuration, and the specification mentions that many other useful configurations exist for the switch separate from this specific configuration. (*See, e.g.*, col. 5, ll. 23-26.) Second, Plaintiff's construction does not resolve the issue of the claim language "having only three terminals," nor does such a construction decide the issue of whether a terminal may be connected to a power supply. As detailed above, the Court finds that, based on the intrinsic record, the "having only three terminals" language excludes any noninverting transistor switch with a terminal connected to a power supply.

The Court hereby construes "**a noninverting transistor switch having only three terminals**" to mean "a noninverting transistor switch with three terminals that does not have a fourth terminal connected to a power supply."

C. “voltage stabilizer”

<u>Disputed Term</u>	<u>Plaintiff’s Proposed Construction</u>	<u>Defendant’s Proposed Construction</u>
“voltage stabilizer”	“a circuit that supplies and regulates voltage”	Indefinite under 112 ¶ 1  Or  “a transistor that provides a voltage to the CMOS inverter and prevents the continued flow of a current from its drain to its source when it experiences a voltage at its source higher than its pinch off voltage”

The disputed term “voltage stabilizer” appears in at least claim 1 of the ’623 patent.

**(1) The Parties’ Positions**

Plaintiff submits that the disputed term is not indefinite and is described in the patent specification as an electronic component that supplies or regulates voltage. (*See, e.g.*, Dkt. No. 44 at 13-15.) Plaintiff argues that Defendant’s alternate construction impermissibly incorporates limitations from preferred embodiments from the specification. (*Id.* at 15.) According to Plaintiff, there is no support for these additional limitations, and such limitations are duplicative of other limitations recited in the claim. (*Id.*)

Defendant responds that the disputed term is not a term of art and that a person of ordinary skill in the art would not be able to discern the scope of the term even with intrinsic evidence. (*See, e.g.*, Dkt. No. 48 at 12-19.) Defendant argues that there is no plain and ordinary meaning of the term and that the patent fails to define a “voltage stabilizer.” (*Id.* at 14.) To that end, Defendant argues that the specification is confusing and contrary to Plaintiff’s construction. (*Id.* at 15.) Defendant also points out that the voltage stabilizer 123 functions to pass, or block, current and does so over varying voltage levels, thereby directly contradicting Plaintiff’s construction. (*Id.* at

15-16.) Finally, Defendant argues that the embodiment in FIG. 6 contradicts Plaintiff's construction and the incorporated by reference '323 patent also provides ambiguity to this term. (*Id.*)

Plaintiff replies that Defendant has not met its burden to prove the claim term is indefinite. (*See, e.g.*, Dkt. No. 49 at 7-8.) Plaintiff also argues that Defendant's construction is limited to the preferred embodiment of the specification without any disclaimer. (*Id.* at 8.)

## **(2) Analysis**

The parties' primary dispute is whether the term is indefinite.

Claim 1 provides little help to this dispute, as claim 1 simply requires a "voltage stabilizer connected to the second and third terminals." Dependent claim 2, however, states that the voltage stabilizer "supplies" the voltage to the CMOS inverter. Dependent claim 5 provides one example of a voltage stabilizer. There is no argument that the prosecution history is relevant to this term.

The specification has numerous references to a "voltage stabilizer." *See, e.g.*, col. 6, ll. 38-46; col. 10, l. 11. For example, the specification mentions that MOSFET 123 and JFET 321 may act as a voltage stabilizer. (*Id.*) The specification mentions that alternative types of "conventional voltage stabilizers" may be used, implying that the term is well understood to those of skill in the art. *Id.* at col. 6, ll. 43-46. Likewise, the specification has numerous references to a "voltage regulator." *See, e.g.*, col. 2, l. 66 – col. 3, l. 4. It is unclear what, if any, difference there is between a voltage regulator and a voltage stabilizer.

Despite the numerous references and descriptions of the term, Defendant argues that the term is indefinite. In effect, Defendant argues that the exemplary "voltage stabilizers" in the '623 patent (both single transistors) cannot function as a circuit that supplies and regulates voltage, but instead exhibit varying voltages during operation. (*See, e.g.*, Dkt. No. 48 at 14-18.) In other words,

Defendant argues that the described voltage stabilizers pass or block current while having changed the voltage rather than regulated the voltage; in particular, Defendant argues that the disclosed transistors perform exactly opposite to the Plaintiff's proposed construction. (*Id.* at 14.) Defendant does not rely upon any expert testimony that the term is indefinite.

In the alternative, Defendant offers a construction on this term based on the only disclosed structure in the '623 patent related to this term. (Dkt. No. 48 at 18-19.) The Court does not find this alternative construction persuasive, nor is the Court convinced that this proposed construction is a correct construction of the broad term "voltage stabilizer." At a minimum, Defendant's construction is an impermissible limitation to a preferred embodiment of the specification. The Court finds that the examples in the specification are non-limiting embodiments of the invention that should not be imported into the claims. The Federal Circuit has consistently held that "particular embodiments appearing in the written description will not be used to limit claim language that has broader effect." *Innova/Pure Water*, 381 F.3d at 1117.

The Court is not persuaded by Defendant's arguments. The term "voltage stabilizer" is a relatively simple and straightforward term. In general, the term "voltage stabilizer" does not appear to have a meaning other than its plain and ordinary meaning. Defendant admits that in this art, supplying a regulated voltage is the same as supplying a constant voltage. (Dkt. No. 48 at 14.) Also, Defendant provides an extrinsic definition of the term "voltage regulator" as a device that "is designed to automatically maintain a constant voltage level" and states it is consistent with Plaintiff's construction (*Id.* at n.4.) In other words, separate from any alleged contradiction between the claim language and the specification, Defendant seems to admit that the plain meaning of the term is well known and is supported by Plaintiff's construction.



The specification also provides some internal guidance as to the scope of the term, mentioning that the stabilizer may “supply” voltage to the CMOS inverter (*see, e.g.*, col. 6, ll. 38-41), which is consistent with dependent claim 2. Based on the plain meaning of the term and the intrinsic evidence, the Court finds that “a voltage stabilizer” is simply a circuit that maintains a constant voltage level. The Plaintiff’s construction includes the term “supplies” in addition to “regulates.” The Court is not persuaded that the term “supplies” is a necessary limitation to the meaning of the term. While the voltage stabilizer might supply voltage in some instances (*see, e.g.*, dependent claim 2), the Court finds that this feature is not a mandatory part of the construction and thus it is not included in the express definition of the term.

Thus, the Court finds that there is no dispute that one of ordinary skill in the art would understand the meaning of the term “voltage stabilizer” in the context of the claims and specification. Likewise, the Court finds that there is no dispute that one of ordinary skill in the art would understand with “reasonable certainty” the scope of the invention and the bounds of the claims. Indeed, Defendant admits that in this art, supplying a regulated voltage is the same as supplying a constant voltage, and then provides a well-known definition for the term “voltage regulator.” Accordingly, pursuant to the Supreme Court’s holding in *Nautilus*, the Court rejects Defendant’s arguments that the claim when “read in light of the specification delineating the patent, and the prosecution history, fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention.”

The Court hereby construes “**voltage stabilizer**” to mean “a circuit that maintains a constant voltage level.”

**D. “connected to”**

<b><u>Disputed Term</u></b>	<b><u>Plaintiff’s Proposed Construction</u></b>	<b><u>Defendant’s Proposed Construction</u></b>
“connected to”	Plain and ordinary meaning	“directly joined together with no intervening circuit components”

The disputed term “connected to” appears in at least claim 1 of the ’623 patent.

**(1) The Parties’ Positions**

Plaintiff submits that the disputed term is readily understood by anyone and does not need construction and should be afforded its plain and ordinary meaning. (*See, e.g.*, Dkt. No. 44 at 19-21.) Plaintiff argues that the term is broad and would apply to components whether or not “directly connected.” (*Id.*)

Defendant responds that while both parties agree that the plain meaning of the word is appropriate, they disagree as to the plain meaning. (*See, e.g.*, Dkt. No. 48 at 25.) Defendant argues that plaintiff’s construction would include any coupling through any number of intervening components. (*Id.*) Defendant asserts, however, that Plaintiff’s “invention” is directed to a narrow and specifically defined circuit structure. (*Id.* at 26.) Thus, Defendant argues that if the words “connected to” were allowed to encompass connections other than direct connections, then the words would have no limiting effect on the claim. (*Id.* at 26-27.) Finally, Defendant argues that the specification uses the words “connected to” nearly 100 times, and every single reference refers to a direct connection. (*Id.* at 27-28.)

Plaintiff replies that “connected to” is readily understood by anyone and does not need construction. (*See, e.g.*, Dkt. No. 49 at 8-9.) More specifically, Plaintiff argues that had the patentee wanted to require “direct” connection in the claims, it could have done so. (*Id.*)

## **(2) Analysis**

The parties' dispute centers on the plain meaning of the term "connected."

The relevant claim language is not particularly helpful, nor is there any argument that the prosecution history is relevant to this term.

The specification uses the term "connected" multiple times (in fact, Defendant alleges it is used almost 100 times). The term "connected" does not appear to have a different meaning other than its plain and ordinary meaning. At no point does the specification expressly limit the term "connected" to only direct connections or connections without any intervening circuits. Perhaps most notably, in one instance the specification even uses the phrase "connected directly to" (col. 11, l. 1), thus implying that the term "connected to" would apply to *both* direct and indirect connections.

The Court disagrees with Defendant's arguments that the plain meaning of the term is limited to only direct connections without intervening circuit components. Had the patentee wanted to limit the term to direct connections, it could have easily done so by claiming "directly connected to" instead of generically "connected to." The Defendant does not cite any extrinsic evidence or common dictionary definitions in support of its construction. Thus, the court finds that, by itself and without more, the ordinary meaning of the term "connected" can include both direct and indirect connections. Importantly, there is no express limitation or disavowal in the patent specification that would exclude indirect connections. The fact that many, most, or all (as the Defendant alleges) of the connections in the '623 patent specification are "direct" connections without intervening circuits does not necessarily preclude indirect connections. The Court finds that such examples in the specification are non-limiting embodiments of the invention that should not be imported into the claims. The Federal Circuit has consistently held that "particular

embodiments appearing in the written description will not be used to limit claim language that has broader effect.” *Innova/Pure Water*, 381 F.3d at 1117. Thus, the Court rejects Defendant’s inclusion to limit the term to merely “direct” connections.

The Court finds that the “connected to” term is simple and readily understood. As confirmed by the intrinsic evidence, this term has no special meaning other than its plain meaning. However, to avoid further late-breaking disputes lodged under the guise of the Federal Circuit’s decision in *O2 Micro*, the Court finds that a construction—consistent with the plain meaning—would be helpful to the parties and to the jury. Here, the Court finds that the phrase “joined together” best serves this purpose. Although Defendant’s proposed construction of “directly joined together with no intervening circuit components” is not supported by the record for the reasons stated above, the Court finds that the phrase “joined together” (as suggested by the Defendant in its construction) is an appropriate construction for the term “connected.” This construction, coupled with the Court’s previous finding that the term “connected to” is not so limited as to require a direct connection, resolves the dispute between the parties and further ensures that no additional construction will be necessary in the future. Therefore, the Court finds that the term requires no further construction besides “joined together to.” *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”); *see also O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”) (*citing U.S. Surgical*, 103 F.3d at 1568).

The Court hereby construes “**connected to**” to mean “joined together to.”

**E. “said COMS inverter interrupting ...”**

<b><u>Disputed Term</u></b>	<b><u>Plaintiff’s Proposed Construction</u></b>	<b><u>Defendant’s Proposed Construction</u></b>
“said CMOS inverter interrupting the passing of current between said voltage stabilizer and the second terminal when said transistor is in its off switching state”	Plain and ordinary meaning	“said CMOS inverter directly blocking the passing of current between said voltage stabilizer and the second terminal when said transistor is in its off switching state”

The disputed term “said CMOS inverter interrupting the passing of current between said voltage stabilizer and the second terminal when said transistor is in its off switching state” appears in at least claim 1 of the ’623 patent.

**(1) The Parties’ Positions**

Plaintiff submits that the disputed term has its plain and ordinary meaning and needs no construction. (*See, e.g.*, Dkt. No. 44 at 22-23.) Plaintiff argues that Defendant’s construction seeks to include the unnecessary limitation that the CMOS inverter “directly blocks” the passing of current. (*Id.*) According to Plaintiff, there is no support for Defendant’s limitation in the specification, as those words are never used in the specification. (*Id.*)

Defendant responds that the parties’ dispute is based on how the CMOS inverter “interrupts” the passing of current. (*See, e.g.*, Dkt. No. 48 at 28-30.) Defendant argues that the issue is whether the CMOS inverter directly blocks the current or allows another circuit element to block the current, and further suggests that Plaintiff’s briefing completely ignores this issue. (*Id.* at 29.) According to Defendant, the claimed CMOS inverter must actually be in the same current path as the voltage stabilizer. (*Id.* at 30.)

Plaintiff replies that it is not clear why “blocking,” much less “directly blocking,” should be substituted for “interrupting.” (*See, e.g.*, Dkt. No. 49 at 10.) Plaintiff further argues that it is not attempting to capture infringement of any circuit that includes a CMOS inverter at any location. (*Id.*)

## **(2) Analysis**

The parties’ primary dispute here is precisely how the CMOS inverter “interrupts” the passing of current. During the hearing the parties argument focused on the meaning of the “interrupting” term and they appeared to agree that the “interrupting” term—and not the surrounding language—is the focus of the dispute. Accordingly, for the purposes of this opinion, the only dispute between the parties as to this phrase is the term “interrupting.”

Claim 1 recites two instances of “interrupted” or “interrupting:” “said transistor having ... an off switching state in which current is interrupted from passing between the second and third terminals” and a “CMOS inverter interrupting the passing of current between said voltage stabilizer and the second terminal when said transistor is in its off switching state.” Such usage demonstrates that the CMOS inverter—and not some other device—is the device which actually performs the “interrupting” limitation, regardless of the scope of the “interrupting” term.

The relevant claim language is not particularly helpful as to the meaning of the underlying “interrupting” term, nor is there any argument that the prosecution history is relevant to this term.

The specification has only a few references to the “interrupting” term. (*See, e.g.*, col. 2, l. 64 – col. 3, l. 3; col. 6, l. 61; Abstract.) The term “interrupting” does not appear to have a different meaning other than its plain and ordinary meaning. The patent specification never uses the terms “block” or “blocking,” much less “directly blocks” or “directly blocking.” Additionally, the Court observes that the use of the term “interrupting” is the same in both the claims and the specification.

The Court fails to see any principled reason as to why “blocking” should be substituted for “interrupting.” Indeed, claim 1 uses the term “interrupting” as opposed to “blocking” and the specification describes the relevant operation in terms of “interrupting.” Importantly, the Defendant offers no explanation of why “blocking” is preferable or how it would be interpreted differently. While “blocking” might be one example of “interrupting,” the term “interrupting” is not limited to “blocking.” Rewriting the claim to substitute one word for another without adding any meaningful benefit is improper. Further, to the extent Defendant’s arguments are based on limiting the claims to a preferred embodiment, those arguments are rejected. The Court finds that the examples in the specification are non-limiting embodiments of the invention that should not be imported into the claims. The Federal Circuit has consistently held that “particular embodiments appearing in the written description will not be used to limit claim language that has broader effect.” *Innova/Pure Water*, 381 F.3d at 1117. Thus, the Court rejects Defendant’s attempt to limit this term to require “direct” interruption.

The Court finds that the “interrupting” term is simple and readily understood. As confirmed by the intrinsic evidence, this term has no special meaning other than its plain meaning. One of ordinary skill in the art, based upon the specification and the claims, would understand the term “interrupted” to have its plain and ordinary meaning and not be limited to “blocking” or “directly blocking.” The Court rejects Defendants’ arguments to the contrary. Defendant’s substitution of “interrupting” by “blocking” is not supported, and it is not clear why substituting one word for another word is more helpful or accurate. No further clarification of this term is necessary. Further, the court finds that the ordinary meaning of the term “interrupting” includes interrupting both directly and indirectly. Because this resolves the dispute between the parties, the Court finds that the term requires no further construction. See *U.S. Surgical Corp. v. Ethicon, Inc.*,

103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”); *see also O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”) (*citing U.S. Surgical*, 103 F.3d at 1568).

The Court hereby construes “**said CMOS inverter interrupting the passing of current between said voltage stabilizer and the second terminal when said transistor is in its off switching state**” to have its plain and ordinary meaning.

## V. CONCLUSION

The Court adopts the above constructions set forth in this opinion for the disputed terms of the patent-in-suit. The parties are ordered that they may not refer, directly or indirectly, to each other’s claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

Within thirty (30) days of the issuance of this Memorandum Opinion and Order, the parties are hereby ORDERED, in good faith, to mediate this case with the mediator appointed herein. As a part of such mediation, each party shall personally appear by counsel and by at least one corporate officer possessing sufficient authority and control to unilaterally make binding decisions for the corporation adequate to address any good faith offer or counteroffer of settlement that might arise during such mediation. Failure to do so shall be deemed by the Court as a failure to mediate in good faith and may subject that party to such sanctions as the Court deems appropriate.



**So ORDERED and SIGNED this 18th day of April, 2017.**

  
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RODNEY GILSTRAP  
UNITED STATES DISTRICT JUDGE