

No. 2012-1014

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

LIGHTING BALLAST CONTROL LLC,

Plaintiff-Appellee,

v.

PHILIPS ELECTRONICS NORTH AMERICA CORPORATION,

Defendant,

and

UNIVERSAL LIGHTING TECHNOLOGIES, INC.,

Defendant-Appellant.

APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
IN CASE NO. 09-CV-0029, JUDGE REED C. O'CONNOR

REHEARING EN BANC BRIEF OF DEFENDANT-APPELLANT

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CERTIFICATE OF INTEREST

Pursuant to Federal Circuit Rule 47.4, counsel of record for the Defendant-Appellant Universal Lighting Technologies, Inc. (“ULT” or “Universal”) certifies the following:

1) The full name of the party represented by counsel of record for Appellant is Universal Lighting Technologies, Inc..

2) The name of the real party in interest is Universal Lighting Technologies, Inc..

3) Universal Lighting Technologies, Inc. is a wholly owned subsidiary of ULT Holdings, Inc. ULT Holdings, Inc. is a wholly owned subsidiary of Panasonic Electric Works Co., Ltd. Panasonic Electric Works Co., Ltd. is a wholly owned subsidiary of Panasonic Corporation. There is no parent corporation or publicly held corporation that owns 10% or more of the interest of Panasonic Corporation.

4) The names of all law firms and the partners and associates that have appeared for Universal in the proceeding before the United States District Court for the Northern District of Texas or who are expected to appear for the party in this Court are:

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INTRODUCTION

This appeal is before the en banc Court pursuant to its March 15, 2013 Order directing briefing on *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448 (Fed Cir. 1998)(en banc). Under *Cybor*, claim construction—*i.e.*, assigning ultimate meaning to claim language, and thereby establishing its scope and legal effect—is a legal issue subject to de novo review. *Cybor* also held that this Court’s de novo review extends to “any allegedly fact-based questions relating to claim construction.” 138 F.3d at 1456. The latter point has been subject to dissent.

Section I, *infra*, answers the questions in the March 15 Order: We support reversing/modifying *Cybor* to provide clear error review of “subsidiary findings” that resolve disputed issues of historical fact based on the trial court’s evaluation of extrinsic record evidence. Otherwise, district court claim constructions should be reviewed de novo, as under *Cybor*.

Section II, *infra*, provides support for our answers in Section I: *Cybor* should be made consistent with Fed. R. Civ. P. 52(a), but de novo review should otherwise be maintained to (a) promote the “desirable uniformity” this Court was created to ensure, (b) support claim construction consistent with this Court’s precedent, (c) be consistent with appellate review in other areas of law, (d) adhere to stare decisis, and (e) guard against claim construction being misused as a tool of litigation strategy, a particular risk for means-plus-function claims.

Section III, *infra*, illustrates the proper standard of review by applying it to the record in this action.

* * * *

At the outset, we emphasize that the outcome of this appeal should be the same regardless of the standard of review—the issue of foremost importance to Defendant-Appellant, Universal Lighting Technologies, Inc. (“ULT”). The Panel correctly held that the “voltage source means” limitation in each asserted claim of U.S. Patent No. 5,436,529 (“the ‘529 patent”) is governed by 35 U.S.C. §112, ¶6 and is indefinite for lack of corresponding structure. The lynchpin question on appeal is whether the “claim language itself recites sufficient structure for performing the function” to overcome the “presumption triggered by the use of the word ‘means’” that the term is governed by §112, ¶6. Panel Opinion, Jan. 2, 2013, Dkt 51 (“Panel Op.”) at 8. The Panel answered that question “no,” whereas the district court, after reconsidering and reversing its earlier ruling, answered it “yes.” But that question, concerning a claim term’s ultimate meaning and legal effect, is an issue of law subject to *de novo* review under precedent before and since *Cybor*.

The district court’s construction did not rely on any subsidiary findings that resolved disputes of historical fact. Indeed, as the district court noted, the only extrinsic evidence was uncontested. In arguing that “voltage source means” is not governed by §112, ¶6, Plaintiff-Appellee Lighting Ballast Control, LLC (“LBC”)

proffered a declaration from its litigation expert, Dr. Victor Roberts, and deposition testimony of the inventor/patent owner, Andrew Bobel. Neither Roberts nor Bobel identified any claim language itself as self-descriptive of, or synonymous with, structure; instead, each testified that a person skilled in the art could read the limitation and “ascertain and implement the structure necessary to supply the DC supply voltage, based on the particular application of the ballast in question.” A21-23; SA29-30 (Roberts); *accord* A660-61 (Bobel). They thus opined that the limitation “connoted sufficient structure” to avoid §112, ¶6. *Id.*

Whereas LBC argued that Roberts’ and Bobel’s statements rebuts the legal presumption that “voltage source means” invokes §112, ¶6, ULT argued that the same evidence is legally insufficient to rebut the presumption and, in fact, confirms that the limitation does not recite structure. At best, it implies any and all structure that one of skill might “ascertain and implement” to perform the recited function.

The district court initially agreed with ULT, based on the uncontested record facts relied on by both parties:

First, Lighting Ballast does not point the Court to any evidence, intrinsic or extrinsic, that the term ‘voltage source’ is commonly used in the electronic ballast industry to mean a rectifier. Rather, Plaintiff relies on the description of the function, stating that persons of skill in the electronic ballast industry, including Bobel and Dr. Roberts, understand that this function, insofar as it includes supplying DC voltage, can be and often is performed by a rectifier. Secondly, Lighting Ballast admits that a rectifier is not the only structure capable of providing DC voltage, pointing out that a battery would suffice. There is no indication that ‘voltage source’ is often used synonymously with the term ‘rectifier’ by

those of skill in the electronic ballast industry, and Lighting Ballast does not appear to argue as much. In fact, the opposite would seem to be the case, since a rectifier is merely one voltage source.

A807-08 (emphasis added). It further ruled the claim “indefinite under section 112, ¶2,” because the specification did not disclose corresponding structure. A814.

Four months later, the district court reconsidered and reversed its initial ruling, this time concluding that “voltage source means” is not governed by §112, ¶6. A16-24. In doing so the district court did not conduct a hearing (just as it did not conduct a hearing before its initial claim construction ruling) or receive new evidence. It simply reached a different construction on the same paper record as its original ruling. *See* A21-22.

In reversing the district court’s claim construction, the Panel did *not* set aside any district court findings. It relied on the same statements from Roberts and Bobel and accepted the district court’s view of the record:

The [district] court found that, according to the limitation’s ordinary meaning, the claimed ‘voltage source means’ corresponds to a class of structures: a rectifier for common applications in which the claimed device is used with an AC power line; and a battery or the like for less commonly used applications in which a DC power line is used.¹

¹ In seeking en banc review, LBC misstated the record by asserting that the district court “made an express factual finding” that the “voltage source means” limitation “is understood to be a rectifier *and only a rectifier.*” *See* Reply Brief in Support of Petition for Rehearing En Banc, Feb. 22, 2013, Dkt 72 (“Reply”) at 3-4 (emphasis added). The district court made no such finding, as is clear from the excerpt of the Panel decision quoted in the text; indeed, LBC’s “record testimony” showed the opposite. *See* Panel Op. at 10.

Panel Op. at 4-5. Where the Panel and the district court differed was on the *legal* question of whether the limitation is subject to §112, ¶6, given the uncontested record below. The Panel explained why the claim invokes §112, ¶6 under this Court’s precedents. Panel Op. at 7-11.

In applying a “clearly erroneous” standard to fact-finding pre-*Cybor*, this Court recognized that, when “no underlying fact issue must be resolved, claim construction is a question of law,” even when extrinsic evidence is considered. *Johnston v. IVAC Corp.*, 885 F.2d 1574, 1579 (Fed. Cir. 1989). In the instant case, therefore, appellate review leads to the same result whether the Court affirms *Cybor*’s “purely” de novo standard or adopts a clearly erroneous standard for reviewing rulings on factual disputes. Under either standard, this Court’s §112, ¶6 precedents require reversal on grounds so well settled that the Panel designated its decision “nonprecedential.”

In revisiting *Cybor*, the Court should consider that any standard of review that would affirm the district court’s construction in this case would undermine “the desirable uniformity” that Congress created this Court to protect. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996) (*Markman II*); accord, e.g., *Cybor*, 138 F.3d at 1455. If the district court’s construction of “voltage source means” were to stand, then the ‘529 patent would not be indefinite in this case. In the meantime, however, if the patent were litigated elsewhere, it could well be

found invalid as indefinite, for the same reasons the Panel reached that conclusion. Either both district court decisions would stand, leaving conflicting treatments of a given patent, or the second decision might be reversed on grounds of stare decisis, notwithstanding that it faithfully applied this Court’s §112, ¶6 precedents, as explained in the Panel opinion. Such a “zone of uncertainty” not only would put “enterprise and experimentation” at risk and “discourage invention,” *Markman II*, 517 U.S. at 390, but also would encourage greater forum shopping and undermine the predictability of claim construction rulings.

Finally, this Court’s plenary review of means-plus-function patent claims is particularly important to prevent indefinite functional claiming that fails to provide public notice of what structure(s) are claimed. LBC’s en banc petition posits that whether a term falls within §112, ¶6 is a fact question, which in turn may rest entirely on the say-so of litigation experts. This Court should reject that proposition as inconsistent with its precedents. The Court’s superior experience with this issue gives it an advantage in reaching consistent and correct decisions on whether claim limitations are governed by §112, ¶6.

STATEMENT OF THE CASE

ULT’s Panel brief summarizes the proceedings below at 3-18. This Statement provides supplemental information to inform the Court’s consideration of the appropriate standard of review for claim construction rulings.

LBC sued ULT and three other defendants in February 2009 in the Wichita Falls Division of the United States District Court for the Northern District of Texas alleging infringement of the ‘529 patent. A231-54. The district judge for that Division had not previously presided over a patent trial and is not among the district judges subsequently identified as “designated patent judges” under the Northern District’s Patent Pilot Case program. N.D. Tex. Special Order No. 3-287 (July 26, 2011).² None of the parties is located in the Wichita Falls Division. A231-32.

In their Joint Claim Construction and Prehearing Statement, the parties requested a claim construction hearing and offered to present a non-evidentiary technology tutorial to assist the court. SA3. The parties further “agree[d] that expert witnesses are not needed at the claim construction hearing” unless requested by the district court. *Id.* The district court did not hold a claim construction hearing or permit a technology tutorial. Counsel first appeared before the district court at the pretrial conference shortly before trial. A149.

On August 19, 2010, the district court issued a Memorandum Opinion and Order ruling that the “voltage source means” limitation of all asserted

² Available at: http://www.txnd.uscourts.gov/rules/misc_rules.html. All actions in the Wichita Falls Division are assigned to one judge. *See* N.D. Tex. Special Order No. 3-259 (Nov. 28, 2007).

claims is indefinite, and therefore the claims are invalid. A796-815. The August 19 Order did not reach any other claim construction issues. A815.

On December 2, 2010, the Court granted LBC's motion for reconsideration, issued an Amended Memorandum Opinion and Order, and reversed its "voltage source means" claim construction. A16-24. The evidentiary record for the December 2 Amended Order was the same as the August 19 Order. LBC relied on the same declaration from its litigation expert, Roberts, and deposition testimony from Bobel. SA73-82; SA84-93; SA94-99. The December 2 Order construed additional disputed claim terms. The Court later reversed one of those constructions and issued additional claim constructions in denying ULT's motions for summary judgment and post-trial motion for JMOL.³

In its Panel brief, ULT appealed from four separate claim construction rulings and from the district court's failure to grant JMOL of non-infringement. Those issues were selected for appeal and briefed to the Panel based on the law as it existed at the time of briefing, including *Cybor*. In light of the Court's direction in the March 15, 2013 Order, this brief will not further address issues that previously were or might have been raised on appeal.

³ The district court reversed its initial construction of "defective" in denying ULT's summary judgment motion and adopted, post-trial, a construction of "connected to" in denying ULT's motion for JMOL, both at the urging of LBC and its litigation expert, as discussed in ULT's Panel brief at 37-51.

I. RESPONSES TO THE COURT’S QUESTIONS OF MARCH 15:

Should this court overrule *Cybor*? Should this court afford deference to any aspect of a district court’s claim construction? If so, which aspects should be afforded deference?

Cybor should be overruled, or at least modified, on one point. We respectfully submit, however, that departure from *Cybor* should be limited and carefully defined. Although we support clear error review of rulings that resolve disputed factual issues based on extrinsic evidence, we urge caution lest such a change be perceived as opening the door to every claim construction being portrayed as a disputed factual issue that invites a battle of experts on how they read a patent for purposes of litigation. That outcome would undermine Congress’s reasons for founding this Court: achieving greater uniformity in patent law and discouraging forum shopping. It also could disrupt progress made in the consistency of district court claim construction in light of *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc) and other precedents.

A. Aspects of *Cybor* That the Court Should Reaffirm

1. This Court’s pre-*Cybor* decisions recognized that “[c]laim construction is reviewed as a matter of law” de novo, even when they applied a clearly erroneous standard to findings based on “evidentiary material about which there is a factual dispute.” *H.H. Robertson v. United Steel Deck, Inc.*, 820 F.2d 384, 389 (Fed. Cir. 1987). *Cybor* affirmed this principle. This aspect of *Cybor* is on all fours with the

Supreme Court’s decision in *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996) (“*Markman II*”), which characterized the “first element[] of a patent case, construing the patent,” as “question of law.” 517 U.S. at 384. The Court should reaffirm that, notwithstanding any subsidiary factual findings, it will review de novo all rulings on the ultimate meaning and scope of patent claims.

2. Where claim construction is based solely on the intrinsic record—a record compiled by the USPTO and reviewed by the courts to ascertain claim meaning—this Court should exercise de novo review. “[F]ind[ing] the acquired meaning of patent terms” is like construing written instruments generally; it requires “special training and practice.” *Markman II*, 517 U.S. at 388. For that reason, interpreting legal texts—contracts, deeds, statutes, and patents—is a legal matter determined in the first instance by a trial court, rather than a jury, and reviewed de novo on appeal. That same principle applies to all parts of a patent. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 978 (Fed Cir. 1995) (“*Markman I*”), *aff’d* 517 U.S. 370 (1996).

3. De novo review should also apply when the district court receives extrinsic information to aid in educating the court rather than resolve disputed factual issues. *See Phillips*, 415 F.3d at 1318. Such information often is presented in non-evidentiary “tutorial” presentations by experts or legal counsel, or in expert declarations or reports. In the instant case, for example, LBC submitted an expert

declaration which provided both tutorial-type information, SA23-31, ¶18 (“[a] ballast is a device for starting and regulating florescent lamps . . . ;”), and argument that mirrored LBC’s claim construction brief on how to construe the patent. *Id.*, ¶22 (“the ‘voltage source limitation, when read in the context of the specification and claims, suggests to me a sufficient structure, or class of structures”).

Receiving the first type of information to understand the technology does not “involve[e] fact-finding in the sense of the traditional fact-law dichotomy.” *Cybor*, 138 F.3d at 1462 (Plager, J., concurring). The second type of information or argument “is entitled to no deference.” *Markman I*, 52 F.3d at 983; *accord Phillips*, 415 F.3d at 1318. Neither should alter the de novo standard.

4. This Court should continue to review de novo the application of law—including statutory provisions, such as §112 ¶6, and this Court’s precedents on claim construction—to any adjudicated or undisputed facts. This is the standard this Court generally applies to mixed fact/law issues and how such issues are reviewed by the Supreme Court in analogous contexts.

5. The Court should reaffirm that it considers and affords due weight to district court claim construction rulings when conducting de novo review. *See Cybor*, 138 F.3d 1458-59 (accepting the trial court’s claim constructions); *id.* at 1462 (Plager, J. concurring) (explaining that the trial judge’s view “will carry weight,” which “may vary depending on the care, as shown in the record, with

which that view was developed, and the information on which it was based”); 138 F.3d at 1463 (Bryson, J. concurring); *cf. id.* at 1478 (Rader, J. concurring) (urging “more deference to trial court claim interpretations, particularly in complex cases” and “where appropriate”).

6. Maintaining de novo review of claim construction and most subsidiary issues, as discussed above, is necessary to furthering important institutional and policy objectives.

a. Chief among these is the need for uniformity “in the treatment of a given patent,” a purpose for which “Congress created this Court as an exclusive appellate court for patent appeals.” *Markman II*, 517 U.S. at 390-91. That “desirable uniformity,” *id.*, would be diminished substantially if the Court were to impose a more deferential formal standard of review, as opposed to continuing the more flexible, “common sense” approach allowed under *Cybor* for most claim construction issues. *Cybor*, 138 F.3d at 1462 (Plager, J. concurring).

b. In addition, “the respective institutional advantages of trial and appellate courts” favor de novo review of most claim construction issues. *See Salve Regina Coll. v. Russell*, 499 U.S. 225, 233, 111 S.Ct. 1217, 1222 (1991). This Court has an advantage generally in construing patents, due to its greater familiarity and experience with patents and claim construction law. De novo review allows this Court to produce more consistent and principled claim constructions. It also

allows the Court to “help institute a simplified and clarified method by which both trial and appellate courts address claim construction issues.” *Cybor*, 138 F.3d at 1463 (Plager, J., concurring). This Court has reversed district court claim constructions less frequently in recent years, reflecting, we submit, progress in this area.

c. The doctrine of *stare decisis* counsels moderation in any change to *Cybor*. Nine of the twelve-member en banc *Cybor* Court endorsed the “purely de novo” standard of review, and that standard has been applied by this Court for over fifteen years to hundreds of decisions. Scores of patent cases are moving their way through the federal judicial system at this time. The Court should disrupt expectations and established practices with caution and only as shown to be necessary.

B. Aspects of *Cybor* That the Court Should Modify to Apply Clear Error Review to District Court Findings of Historical Fact

1. ULT supports modifying *Cybor* to apply a clearly erroneous standard of review when, as part of claim construction, the district court resolves a disputed issue of historical fact—i.e., a question as to an event or an understanding outside the patent. This would include, for example, a determination (a) that a word or phrase had a specialized meaning in a field of art at the time of invention and (b) what that specialized meaning was at the time. Such disputes necessarily must be resolved on extrinsic evidence in most cases. An issue of historic fact would not

include, however, the meaning of a claim term as used in the patent, which should remain a matter of law as directed in *Markman II*, 517 U.S. at 384, or an assertion that a claim term does or does not meet a legal requirement, e.g., that a claim term drafted using “means” sufficiently recites structure to rebut the presumption that the term is governed by §112, ¶6. Modifying *Cybor* in this manner would be consistent with Fed. R. Civ. P. 52(a)(6). It also would afford deference to district courts where they have a comparative advantage as fact-finders from an institutional standpoint.

2. The instant case illustrates the limits of appellate deference. The court below did not resolve any disputed facts. Rather, the extrinsic evidence presented by LBC focused not on historical facts but instead how the ‘529 patent itself should be read; i.e., it amounted to argument. To the extent that evidence provided information relating to the technology of the patent, it served to prove ULT’s point: that the “voltage source means” limitation did not recite structure and at best suggested all forms of structure that might perform the recited function. The record provides no basis on which to defer to the district court’s construction of the “voltage source means.” LBC’s en banc petition argues that these purported “facts” control the construction of “voltage source means.” This argument illustrates how litigants may seek to supersede the intrinsic record with testimony from interested witnesses to turn claim construction into a purely “factual” inquiry

that turns on a battle of experts. The Court should make clear that deference does not extend to such evidence or to rulings based thereon.

II. THE STANDARD OF REVIEW FOR CLAIM CONSTRUCTION

A. Standards of Review Relevant to District Court Claim Construction

Of the four generally-recognized standards of appellate review, the *de novo* and clearly erroneous standards are relevant to this Court’s review of district court rulings. *See SSIH, Equipment S.A. v. ITC*, 718 F.2d 365, 381-83 (Fed. Cir. 1983). The key distinction between *de novo* and clear error review is that, under the former, the appellate court accepts the ruling below only if it is persuaded that the ruling is correct, whereas under the latter, the appellate court must accept a district court’s finding, even if it “would have weighed the evidence differently,” unless the finding is clearly wrong. *Anderson v. City of Bessemer*, 470 U.S. 564, 573-74 (1985); *accord* K. Casey, et al., *Standards of Appellate Review in the Federal Circuit: Substance and Semantics*, 11 Fed Cir. B.J. 279, 298 (2001) (and cases cited) (“[t]he clear error rule inescapably means that in many cases, the appellate court must affirm findings of fact, although the same court would also have affirmed contrary findings”).

Under either standard, this Court considers and gives “due weight” to the district court’s reasoning and statements. *Cybor*, 138 F.3d at 1462 (Plager, J., concurring) (“[t]hough we review [the trial] record ‘de novo,’ meaning without

applying a formally deferential standard of review, common sense dictates that the trial judge’s view will carry weight”); *id.* at 1462 (Bryson, J., concurring) (same); *Nazomi Commc’ns, Inc. v. ARM Holdings, PLC*, 403 F.3d 1364, 1371 (Fed. Cir. 2005) (same). *Accord*, e.g., *Salve Regina College v. Russell*, 499 U.S. 225, 232 (1991) (“an efficient and sensitive appellate court at least will naturally consider [the district court’s legal] analysis in undertaking its [independent] review”).

The appellate court may calibrate the precise weight it gives the district court’s rulings based on, for example, the district court’s analytical rigor or the standard of proof. *See SSIH Equipment S.A.*, 718 F.2d at 383. As former Chief Judge Michel explained:

[T]his [de novo] standard is better expressed as “simple error,” i.e., neither mandatory nor fixed deference. We say such issues are “freely reviewable.” Note that that does not mean no actual deference in a particular case, but only that we are free to deny or limit deference. . . .

Often such voluntary and indefinite deference is a function of the power of the facts and quality of the trial forum’s analysis. Other times, it’s a function of presumed agency expertise in interpreting and applying a statute it administers. Always, calibrating it is a matter of case-by-case analysis.

P. Michel, *Appellate Advocacy – One Judge’s Point of View*, 1 Fed. Cir. B.J. 1, 3-4 (1991); *accord* K. Casey, et al., *supra* at 291 (and cases cited).

Properly understood, therefore, de novo review does not denigrate or render meaningless the trial court’s decision making. Suggestions to the contrary—e.g., that de novo review “treats the district court as an intake clerk, whose only role is

to collect, shuffle and collate evidence,” *Phillips*, 415 F.3d at 1332 (Mayer, J., dissenting)—are overstated. *See, e.g., Key Pharm. v. Hercon Lab. Corp.*, 161 F.3d 709, 713 (Fed. Cir. 1998) (“we do not start from scratch; rather we begin with and carefully consider the trial court’s work”).

The choice between de novo and clear error review turns on whether an issue is one of “law” or “fact.” The difficulty arises in distinguishing “factual” from “legal” issues. While some issues may readily be labeled “factual” or “legal,” many issues embody some aspects that may be characterized as factual and others that involve legal standards. Distinguishing between the two based solely on characterization or labeling can be a “vexing” task. *Pullman-Standard v. Swint*, 456 U.S. 273, 288 (1982); *Miller v. Fenton*, 474 U.S. 104, 113 (1985). For that reason, when an issue “falls somewhere between a pristine legal standard and a simple historical fact, the fact/law distinction at times has turned on a determination that, as a matter of sound administration of justice, one judicial actor is better positioned than another to decide the issue in question.” *Miller*, 474 U.S. at 114; *see Universal Elecs. Inc. v. United States*, 112 F.3d 488, 493 (Fed. Cir. 1997) (“[D]eference is a legal concept that allocates roles between one adjudicating tribunal and another.”); *accord Salve Regina College*, 499 U.S. at 233.

Courts also routinely consider other policy considerations, including the importance of promoting uniformity in the law and the outcome of specific cases.

See Salve Regina College, 499 U.S. at 231. As discussed further in Section II.B, *infra*, the Supreme Court’s decision in *Markman II* and this Court’s *en banc* decision in *Phillips* provide substantial guidance in this regard on the appropriate standard of review for claim construction. While neither case squarely addressed the standard of review, collectively, *Markman II* and *Phillips* set a framework for construing claims, particularly the need for uniformity in interpreting any given patent and how various intrinsic and extrinsic sources should be used in construing claims. The standard of review should be in harmony with the *Markman II/Phillips* framework, as discussed in Section II.B, *infra*.

Finally, in deciding the deference afforded trial court claim constructions, this Court is “not writ[ing] on a clean slate.” *See Miller*, 474 U.S. at 115. Because strong policy reasons support de novo review of most aspects district court claim construction rulings, the Court must consider seriously how the standard would best be changed, if at all.

B. *Cybor* Should Be Reversed or Modified to Provide Clear Error Review of Subsidiary Rulings On Disputed Issues of Historical Fact When Made as Part of Claim Constructions that Are Otherwise Reviewed De Novo

1. Claim construction itself is a question of law that must be reviewed de novo

The ultimate meaning and legal effect of claim terms and the scope of claim limitations are legal issues and therefore properly reviewed de novo by this Court.

See Markman I, 52 F.3d at 977-78 (collecting cases and stating that the Supreme Court has repeatedly held that claim construction is a matter of law); *Flo Healthcare Solutions, LLC v. Kappos*, 697 F.3d 1367, 1381-82 (Fed. Cir. 2012) (Newman, J., additional views) (de novo review of questions of law, such as claim construction, promotes resolution “objectively and correctly”).

In *Markman II* the Supreme Court observed that claim construction is a question of law. *Markman II* held that “[t]he construction of a patent, including terms of art within its claim, is exclusively within the province of the court.” 517 U.S. at 372. The Supreme Court’s reasoning should be considered carefully here. The Supreme Court noted that “in other kinds of cases [at common law] judges, not juries, ordinarily construed written documents,” and it found no evidence that patents were treated any differently. 517 U.S. at 378-384.

In deciding claim construction should be “characterize[d]” as a question of law, the Supreme Court cited historical authorities explaining that patents were legal instruments whose construction was a matter of law, even when a court received testimonial evidence to aid in its construction. *Id.* at 384-388. The *Markman II* Court acknowledged that, while “in theory” a claim construction could turn on a “simple credibility judgment” between competing experts, “our own experience with document construction leaves us doubtful that trial courts will run into many cases like that.” *Id.*

Markman II also emphasized the “importance of uniformity in the treatment of a given patent as an independent reason” to allocate claim construction to the court. *Id.* at 390. Such “desirable uniformity” was the reason Congress created this Court as the exclusive appellate court for patent cases. *Id.* Thus, “treating interpretive issues as purely legal will promote” certainty through the application of *stare decisis* on those questions “not yet subject to interjurisdictional uniformity under the authority of the single appeals court.” *Id.* at 391.

Markman II thus holds that claim construction ultimately is “an issue of law,” as well as “an issue for the judge, not the jury.” 517 U.S. at 391. Accordingly, the construction given to claim language is a matter of law to be reviewed de novo. This conclusion also accords with the Court’s treatment of indefiniteness and summary judgment. The standard of review for claim construction must align with the standard for both indefiniteness and summary judgment as a general matter. For example, summary judgment of invalidity of indefiniteness necessarily involves issues of claim construction. *See e.g. Inventio AG v. ThyssenKrupp Elevator Americas Corp.*, 649 F.3d 1350, 1355 (Fed. Cir. 2011). If the standards were inconsistent, then the same issue could be reviewed and thus decided differently depending on the manner in which it procedurally arrives before the Court.

2. Claim construction based on the intrinsic record should be reviewed de novo

Markman II provides that a court's responsibility for construing patents, and that construction's "legal" nature, is not limited solely to construing the claims. 517 U.S. at 372, 384-92. *Markman II* observed that "[t]he construction of a *patent*, including terms of art within its claim, is exclusively within the province of the court," and further that "interpretive issues" are treated as "purely legal." *Id.* at 372, 391 (emphasis added). A patent is a "fully integrated legal instrument," consisting of a specification that concludes with the claims." *Phillips*, 415 F.3d at 1315 (quoting *Markman I*, 52 F.3d at 978)). The prosecution history also has been designated as part of the intrinsic evidence. *Id.* at 1317. It would be inconsistent for this Court to review de novo as a matter of law the construction and understanding of one part of the instrument (the claims), but not other parts of that same instrument (the specification or prosecution history).

Thus, just as this Court need not defer to a trial court's claim construction, this Court likewise need not defer to the trial court's reading of the specification or prosecution history. To the contrary, because the intrinsic record must always be consulted in construing claims (*Phillips*, 415 F.3d at 1315-17), granting deference to the district court's reading of the intrinsic record would undermine the legal nature of claim construction established in *Markman II* and this Court's earlier precedent.

De novo review in this context also follows the long-established principle that ““appellate courts have untrammelled power to interpret written documents.”” *Markman I*, 52 F.3d at 978, quoting *Eddy v. Prudence Bonds Corp.*, 165 F.2d 157, 163 (2d Cir. 1947) (Learned Hand, J.). The meaning of other legal documents, such as statutes, contracts, and wills, are questions of law subject to de novo review. See e.g. *Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331, 1336 (Fed. Cir. 2011) (“contract interpretation is a question reviewed de novo”); *Kimberly-Clark Corp. v. P&G Distrib. Co.*, 973 F.2d 911, 915 (Fed. Cir. 1992) (statutory interpretation is a question of law “freely reviewable on appeal”); *Universal Elecs. Inc.*, 112 F.3d at 492, n.2 (proper interpretation of tariff provision or term is pure question of law).

As with patents, when construing a statute or contract, a court looks first to the text of the document in order to give it its plain meaning. *USA Choice Internet Servs., LLC*, 522 F.3d at 1336; see also *Sharp v. United States*, 580 F.3d 1234, 1236-37 (Fed. Cir. 2009) (applying “traditional tools of statutory construction” to text of Veterans Benefit Act). If the intent is unambiguously expressed based on the clear language, the document should be construed as a matter of law without resort to extrinsic evidence. See e.g. *Thatcher v. Kohl’s Dep’t Stores, Inc.*, 397 F.3d 1370 (Fed. Cir. 2005) (holding that parole evidence is not necessary to construe facially unambiguous contract). In construing a statute, a court also may

look to the legislative history for further support or to determine if “a clear intent contrary to the plain meaning exists.” *Sharp*, 580 F.3d at 1238; *USA Choice Internet Servs., LLC v. United States*, 522 F.3d 1332, 1339 (Fed. Cir. 2008). Ultimately though, the meaning of the legal document is a question of law reviewed by this Court “afresh.” *Universal Elecs. Inc.*, 112 F.3d at 492-93.

The trial court ordinarily holds no advantage in interpreting the intrinsic record given that it played no part in compiling that record. Trial courts supervise building a record of extrinsic evidence, which may weigh in favor of deferring to trial court fact findings based on that record. *See Cooter & Gell v. Hartmax Corp*, 496 U.S. 384, 402 (1990). The intrinsic record, however, is not marshaled under the trial court’s supervision. Therefore, reviewing the intrinsic record is not a “fact-finding” exercise for the trial court any more so than for this Court. *Amgen Inc. v Hoechst Marion Roussel, Inc.*, 469 F.3d 1039, 1045 (Fed. Cir. 2006) (Gajarsa, Linn, and Dyk, Js. concurring) (urging that no deference is due a construction based on the intrinsic record, which the appellate court “is equally competent to interpret”).

This Court’s de novo review of the intrinsic record improves accuracy in claim construction. *Salve Regina College*, 499 U.S. at 232 (“courts of appeals . . . are structurally suited to the collaborative juridical process that promotes decisional accuracy.”) Because this Court handles significantly more patent cases

than individual district court judges, its repeated experience with claim construction makes it better positioned to review claim construction rulings and interpret the intrinsic record in order to ensure that accurate, uniform results are reached.

3. District court findings that resolve disputed matters of historical fact based on extrinsic evidence should be reviewed for clear error

Trial courts may make findings of historical fact in arriving at legal conclusions. *Ornelas v. United States*, 517 U.S. 690, 699 (1986). *Markman II* acknowledged that this also is true in claim construction, which may have “evidentiary underpinnings.” 517 U.S. at 390. When a district court resolves a dispute of historical fact relevant to claim construction, which ordinarily requires consideration of extrinsic evidence, Rule 52(a) suggests that this Court should defer to the district court’s findings and set them aside only if clearly erroneous.

Fact findings warranting deference may arise if the trial court considers extrinsic evidence. *Phillips* teaches that ordinarily the intrinsic record is “dispositive” in construing claim terms; nonetheless district courts are authorized to consider extrinsic evidence “for a variety of purposes” in construing claims. 415 F.3d at 1318. For example, a trial court might consult extrinsic sources without making any fact findings, but instead to “provide background on the technology at issue, to explain how an invention works,” or otherwise assist the trial court in understanding unfamiliar concepts. *Id.* at 1318; *Vitronics Corp v.*

Conceptronic Inc., 90 F.3d 1576, 1584 n.6 (Fed. Cir. 1996). Trial courts may refer to such sources in claim construction to set the stage for their rulings, even when not necessary to resolve any claim construction issues. The trial court's efforts in this regard may and should be afforded careful consideration by this Court in reviewing claim construction. But in conducting these activities, the trial court is not resolving fact disputes, and thus not making fact findings that should be afforded clear error deference.

A district court may also consider extrinsic evidence to resolve a dispute of historical fact that underlies claim construction. A court may make historical findings of fact, for example, on whether claim language had a common meaning or a specialized meaning in the art at the time of the invention. Thus, a court may consider the prior art's scope and content, the level of ordinary skill in the pertinent art, and a particular word or phrase's meaning in a technical field, all at the time of the invention. *See e.g. Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966); *Amgen Inc.*, 469 F.3d at 1046 (Gajarsa, Linn, and Dyk, Js. concurring).

Disputed issues of historical fact may arise, for example, if parties present conflicting testimony or documentary evidence as to facts existing at the time of the alleged invention (or, likewise, one party may present such evidence while the other party assails the evidence's credibility). Generally, the trial court will not resolve these disputes based on legal instruments or legal rules, in contrast to its

interpretation of the “fully integrated” intrinsic record, *see* Section B.2, *supra*. Resolution may instead depend on the trial court’s opportunity to judge credibility or its supervision of an evidentiary record, areas in which trial courts excel. *Salve Regina College*, 499 U.S. at 232. Clear error review should apply to such fact findings. The ease of establishing clear error may vary depending on the circumstances, for instance, whether the evidence came from documents or live testimony. *See Orvis v. Higgins*, 180 F.2d 537, 539-40 (2d Cir. 1950) (leading case); *accord, e.g., Anderson*, 470 U.S. at 573 (greater deference may be due under the clearly erroneous standard to findings based on witness credibility determinations); *K. Casey, et al., supra*, at 298-307.

4. The clearly erroneous standard of review should be limited to findings of historical fact to preserve the Court’s essential role in ensuring uniformity, compliance with *Phillips* and other claim construction precedents, and application of the law to fact

LBC argues that the claim construction in this case (and by logical extension other cases) may be reduced to a bare “factual” determination based on testimony of its litigation expert and the patent holder. Petition for Rehearing *En Banc*, Jan. 31, 2013, Dkt 55 (“Petition”) at 6-11; Reply at 3-4. Because the “nature of the [claim construction] inquiry itself” is fundamentally legal, *see Miller*, 474 U.S. at 115, it cannot be boiled down to a bare inquiry into witness’ views on how claims should be read. Even when the trial court makes proper fact findings, or accepts undisputed facts, such facts will be but one input to the claim construction inquiry.

This Court retains plenary power to correct errors in applying the law to facts, and to reject legal conclusions couched as “fact findings.”

a. As in other areas of the law, the Court should review de novo the application of law to factual findings or undisputed facts

Claim construction may be denominated a “mixed question” of law and fact where it involves making factual findings and then applying legal principles to those facts to construe a term. As discussed in Section B.3, *supra*, a district court’s fact findings—the first step in the mixed law and fact analysis—should be reviewed for clear error. But the application of law to fact—the second step—should be reviewed de novo.

In *Ornelas*, the Supreme Court addressed the standard for reviewing mixed fact/law determinations of reasonable suspicion and probable cause. The Court recognized that the determination involves certain “historical facts,” namely the events leading up to the stop or search, reviewed for clear error. 517 U.S. at 696, 699. However, “the decision whether these historical facts, viewed from the standpoint of an objectively reasonable police officer, amount to reasonable suspicion or probable cause” is a mixed question of law and fact. “[W]hether the rule of law as applied to the established facts is or is not violated” is subject to independent review. *Id.* at 696-97; *see also Miller*, 474 U.S. at 117 (while , findings on subsidiary factual issues, such as length of interrogation, are reviewed

for clear error, ultimate issue of voluntariness of a confession remains subject to de novo review); *Icicle Seafoods, Inc. v. Worthington*, 475 U.S. 709, 714 (1986).

This Court similarly reviews de novo rulings applying the law to established or determined facts. *See Ferag AG v. Quipp Inc.*, 45 F.3d 1562, 1566 (Fed. Cir. 1995) (section 102(b) on-sale bar defense); *Abraxis Bioscience, Inc. v. Navinta, LLC*, 625 F.3d 1359, 1363 (Fed. Cir. 2010) (standing); *Former Employees of Sonoco Prods. Co. v. Chao*, 372 F.3d 1291, 1294-95 (equitable tolling of statute); *LeMans Corp. v. United States*, 660 F.3d 1311, 1315 (Fed. Cir. 2011) (imported merchandise classification under Harmonized Tariff Schedule); *USA Choice Internet Servs., LLC*, 522 F.3d at 1336 (tax laws).

The standard of review applied to obviousness determinations is particularly instructive. Obviousness is a legal conclusion reviewed de novo based on fact findings reviewed for clear error under Rule 52(a). Once those findings are made, or if the facts are not in dispute, obviousness is a purely legal question reviewed de novo, “even though some facts favor obviousness, some nonobviousness.” *Newell Cos., Inc. v. Kenney Mfg. Co.*, 864 F.2d 757, 762-63 (Fed. Cir. 1988). *Accord Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567-68 (Fed. Cir. 1987).

Claim construction should be reviewed on the same basis. Pre-*Cybor*, this Court recognized that claim construction is “a question of law” if no underlying factual disputes exist. *Johnston v. IVAC Corp.*, 885 F.2d 1574, 1579 (Fed. Cir.

1989) (“this is true even where the meaning cannot be determined without resort to the specification, prosecution history or other extrinsic evidence”); *accord Cybor*, 138 F.3d at 1464 (Mayer, J., concurring in judgment) (supporting clear error review but only “when evidentiary disputes exist as part of construction”); *Phillips*, 415 F.3d at 1332 (Mayer, J. dissenting) (underlying factual questions are resolved by extrinsic evidence, “not by resort to case law as one would expect for legal issues”). By logical extension, once any underlying factual disputes are resolved, by adjudication or agreement, claim construction is a purely legal issue.

Finally, this Court’s claim construction doctrines acquire meaning and clarity through consistent application. *See Panduit*, 810 F.2d at 1568 (“[c]larity in the law requires universal application of the same legal standards to fact-finding functions performed en route to final §103 conclusions”); *Ornelas*, 517 U.S. at 697 (“independent review is therefore necessary if appellate courts are to maintain control of, and to clarify, the legal principles”); *Flo Healthcare Solutions, LLC*, 697 F.3d at 1380 (appellate court “rationalize[s] and clarify[ies] the applicable rules of law.”) Accordingly, the Court’s de novo review of claim construction “unif[ies] precedent” over time and provides district courts guidance for properly construing claims, if only by analogy. *Ornelas*, 517 U.S. at 698.

b. The Court should not defer to “findings” based on conclusory extrinsic evidence, such as expert testimony on the scope or legal effect of claim terms

Under a standard giving deference to fact finding, litigants advancing claim construction positions that lack support in the intrinsic record will have a strong incentive to try to create supposed “fact” disputes. Such parties will proffer expert testimony purporting to show that a “person of ordinary skill” would understand a particular claim term to have some meaning. If accepted by the district court, the litigant will then argue on appeal that the claim construction, while in reality a question of law, supposedly turns on a fact dispute and so the construction must stand unless this Court finds clear error.

This problem is particularly acute when construing means-plus-function claim terms. The presumption of means-plus-function claiming may be overcome if the “means” term describes sufficient structure. Perversely, when the “means” term is unbounded by structure in the claim language or specification and thus indefinite (like “voltage source means” in the ‘529 patent), the very lack of structure may be used by a patentee to its advantage. As is happening here, a patentee could introduce opinion evidence from interested witnesses as to how they would understand the claim term as “persons of skill in the art,” tailored to whatever structure advances the case at hand (i.e., a structure found in the accused products and/or not found in the prior art). If such opinion evidence were accepted

by the district court, a patentee may argue that its “factual” evidence was the only record evidence, and the district court’s construction would be insulated on appeal. Indeed, LBC contends that the asserted claims’ construction (and validity) rises and falls entirely on the import of its expert and inventor/patent owner averments (presented in documentary form), and that the district court’s decision on this supposedly dispositive point—which LBC contends is “plausible”—may be reviewed only for clear error. Petition at 6-11; Reply at 3-4. LBC’s position effectively recasts the application of the means-plus-function statute (35 U.S.C. §112(f)) as a purely fact finding exercise.

The Court should make clear that it will not defer to trial court “findings” that in fact are legal conclusions. It is well-established that the standard of review is not controlled by the label attached by the district court. If the trial court mislabels a legal conclusion as a fact finding, the appellate court nonetheless will apply the correct (de novo) standard of review, and vice versa. *Panduit*, 810 F.2d at 1577 (giving no deference to a district court’s conclusion labeled as a finding); 9-52 Moore’s Federal Practice - Civil § 52.32[6] (citing several cases).

The Court may draw a clear distinction between issues of “fact” and “law” in this context: When a district court determines whether, at the time of the invention, a claim term had an understood meaning or usage in the pertinent art—that is, outside of the patent—it has found a fact. When a district court further

determines that meaning or usage, it has found another fact. Both fact findings are entitled to clear error deference. Neither finding though, alone or together, controls claim construction.

In contrast, when a district court determines how one of ordinary skill in the art would interpret a claim term in a patent, it is making the ultimate legal conclusion on claim construction. *See Phillips*, 415 F.3d at 1312-13 (claim terms are construed with the meaning they “would have to a person of ordinary skill in the art at the time of the invention.”) The “person having ordinary skill in the art” is a legal “ghost,” and “the answer to” how this ghost would interpret a patent claim, like whether this ghost would find a claim obvious, “partakes more of the nature of law than of fact, for it is an ultimate conclusion based on a foundation formed of all the probative facts.” *Panduit*, 810 F.2d at 1566. This Court need not defer to a district court’s legal conclusion as to how one of ordinary skill in the art would interpret a claim term, even if labeled a “finding,” particularly when that “finding” serves as a surrogate for the scope and legal effect to be given to claim language.

In this regard, if a district court credits conclusory expert testimony on claim construction, the result is a legal error due to misapplication of the Court’s claim construction precedents that must be corrected without deference. *Markman I*, 52 F.3d at 983 (witness testimony as to how the patent should be construed “amounts

to no more than legal opinion ... and is precisely the process of construction that the court must undertake”); *see also id.* at 998 (Rader, J., concurring) (patent law expert’s and inventor’s testimony “cannot manufacture a fact issue where none exists”). Generalized, unsupported testimony about how a claim term should be understood—in contrast with its historic meaning in the art—is irrelevant.

Phillips, 415 F.3d at 1318 (“conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court”); *see also Vitronics*, 90 F.3d at 1584-85 (“opinion testimony on claim construction should be treated with the utmost caution” as it “often only indicates what a particular expert believes a term means.”) Thus, claim construction does not reduce to a bare factual dispute merely because two expert witnesses retained for litigation purposes disagree on how they purport a person of ordinary skill in the art would understand the term.

Similarly, when interpreting a means-plus-function claim, a district court might find as fact that a claim term was ordinarily used or understood in the art as a name for a structure, however, its conclusion that a claim term connotes sufficient structure to a person of ordinary skill in the art to avoid § 112, ¶ 6 is a question of law. Further, expert testimony regarding what one of ordinary skill in the art would understand from the specification becomes relevant only once it is determined that the specification discloses structure corresponding to a “means” term; expert testimony cannot be used to “supplant the total absence of structure

from the specification” in the first instance. *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1312, 1317-19 (Fed. Cir. 2012).

The present case illustrates these distinctions. The district court found as a fact in its original opinion that the term “voltage source means” was not used or understood in the lighting ballast industry to describe a rectifier or any other structure. A808. This is a matter of fact: it does not depend on applying the law or on the ‘529 patent itself. The district court also received an expert declaration submitted by LBC that provided both:

- (a) tutorial-type information, e.g., ¶18 (“[a] ballast is a device for starting and regulating florescent lamps . . . ;” and ¶22 (“the only way for a lighting ballast to convert AC (from a ‘power line source’ such as a wall outlet or similar AC power source in a home or office) into DC (for use as the ‘DC supply voltage’) is through a rectifier. . . A battery could likewise provide the necessary DC supply voltage.”); and
- (b) argument that mirrored legal argument in LBC’s claim construction brief on how to construe the patent, e.g., ¶22 (“the ‘voltage source limitation, when read in the context of the specification and claims, suggests to me a sufficient structure, or class of structures”); and ¶23 (“[i]f the Court determines that §112, ¶6 applies, then the specification discloses corresponding structure – namely a rectifier”).

SA28-31

Receiving the first type of information to aid the court in understanding the technology, and thereby intrinsic record, does not “involve fact-finding in the sense of the traditional fact-law dichotomy.” *Cybor*, 138 F.3d at 1462 (Plager, J., concurring). *See* Section II.B.3 *supra*. The second type of information or

argument “is entitled to no deference.” *Markman I*, 52 F.3d at 983; *accord Phillips*, 415 F.3d at 1318. Neither form of information, if received or relied on by the district court, should alter the de novo standard of review for claim construction rulings.

* * * *

Although not as straightforward as the “purely” de novo standard of review directed under *Cybor*, it should be reasonably clear in almost all situations (and indeed, it is clear in the case at hand) what aspects (if any) of a given district court decision on claim construction should be afforded deference under the modified standard recommended herein. While a fact finding should be reviewed for clear error, the trial court’s ultimate claim construction remains an issue of law that is reviewed de novo, even if it is based in part on such a finding. Even findings of historical fact still may be reversed as clearly erroneous, if contradicted by other evidence or inconsistent or implausible. *See Anderson*, 470 U.S. at 575. This should allow this Court to continue to discharge its important role in maintaining “desirable uniformity” in the construction of a given patent.

C. Policy Considerations Counsel Against Extending Clear Error Review to Other Aspects of Claim Construction

Several policy reasons support limiting clear error review to determinations of historical fact that are necessary to the claim construction process. Adopting the

broad level of deference urged by LBC would have serious negative effects on patent litigation and the patent system as a whole.

First, if a clear error standard of review were broadly applied, a construction that not only is incorrect, but also inconsistent with that of another district court, is more at risk of being left intact. As the Supreme Court observed in *Markman II*, uniformity is important not only in application of patent laws generally, but also with respect to “a given patent.” *Markman II*, 517 U.S. at 390.

The limits of a patent must be known for the protection of the patentee, the encouragement of the inventive genius of others and the assurance that the subject of the patent will be dedicated ultimately to the public. Otherwise, a zone of uncertainty which enterprise and experimentation may enter only at risk of infringement claims would discourage invention only a little less than unequivocal foreclosure of the field.

Id. (internal quotations omitted). Congress created this Court “for the sake of such desirable uniformity.” *Id.* Undue deference could undermine that goal.

This Court has used its plenary review power to resolve conflicting claim constructions among the district courts. For example, in *American Piledriving Equipment, Inc. v. Geoquip, Inc.*, the Court reviewed different constructions of the same patent terms by two district courts. 637 F.3d 1324, 1326-1327 (Fed. Cir. 2011). Based on the intrinsic evidence, the Court affirmed the constructions of one district court, but found that the constructions of the same terms by the second court improperly imported limitations from the specification. *Id.* at 1327, 1332.

Second, unwarranted deference could encourage the “forum shopping and intense litigation over the choice of forum” that was a hallmark of patent litigation before Congress vested exclusive jurisdiction over patent appeals in this Court. See E. E. Sward et al., *The Federal Courts Improvement Act: A Practitioner’s Perspective*, 33 Am. U. L. Rev. 385, 387 (1984) (citing Congressional testimony of former Chief Judge Markey among others).

Third, injecting uncertainty into the process of determining claim meaning could stifle innovation. This Court was created to hear patent appeals after Congress heard testimony that “different interpretations of patent law discouraged innovation and made business planning difficult and investment uncertain.” Sward et al., *supra*, at 387 (citing Congressional testimony). In particular, at that time a patent’s validity might depend entirely on the court in which it was litigated. *Id.* The same result easily could happen in a case like this one under the overly-deferential standard apparently urged by LBC: the ‘529 patent’s validity would depend entirely on which district court judge was assigned the case, because (in LBC’s view) the district court’s construction here was not “clearly erroneous” and the same certainly would be true of a district court judge who instead followed the Panel’s reasoning. While the standard ULT proposes would not absolutely foreclose this possibility “in theory,” it would be “doubtful” that many (if any) patent litigations would depend on the choice of forum.

Under LBC’s proposed standard, businesses might be less willing to seek patent protection if the parameters of how a competitor may legitimately design-around are no longer as clear. Nor might businesses be as willing to invest in developing new technology if they are less able determine beforehand that a new design likely is not infringing the patented technologies of others. *See generally Flo Healthcare Solutions, LLC*, 697 F.3d at 1380-81 (Newman, J., additional views) (recognizing that patent system serves innovation and commerce of the technology community, and thus “judicial obligation” to assure consistent application of correct patent law is of “critical economic consequence”). Consequently, this Court should take care not to create a rule that leads to overly subjective determinations of patent claims. *Panduit*, 810 F.2d at 1573 (rejecting district court’s “decisional approach” since “the law must be the same for all patents and types of inventions” and “a level playing ground for the marketplace of ideas is ... necessary for technological innovation”).

Fourth, an unclear standard of deference will lead to messy, distracting disputes in every appeal involving claim construction regarding the standard of review that applies. Under the current framework the standard of review is never disputed. This is a benefit. Moving to a hybrid standard of review could encourage parties to an appeal to attempt to frame most claim construction issues as factual questions, much like LBC tries to do here. Such an outcome would only

increase the workload on this Court and the uncertainty for litigants, undermining any predictability benefits that would inure from changing the standard of review.

Fifth, many of the problems attributed to the de novo standard of review set forth in *Cybor* (see e.g. *Phillips*, 415 F.3d at 1333 (Mayer, J., dissenting) (de novo review has not clarified the law but caused confusion among the district courts and bar) have been mitigated or altogether eliminated by the Court's decision in *Phillips* firmly establishing the claim construction methodology to be employed by district courts, and subsequent decisions applying that methodology. In turn, claim construction reversals by this Court have markedly decreased since *Phillips*. One empirical analysis shows that, since *Phillips*, this Court's claim construction reversal rate has dropped from 38.6% to 25.6% on a per claim term basis, and in 2011, the average reversal rate was at a low of 17%. See Anderson, Jonas and Menell, Peter S., *Informal Deference: An Historical, Empirical, and Normative Analysis of Patent Claim Construction*, *Northwestern University Law Review*, Vol. 108, Forthcoming, (October 4, 2012) at 8-9, available at SSRN: <http://ssrn.com/abstract=2150360>.⁴ In contrast, a broad scope of deferential review will encourage litigants to attempt to posture issues disputes of fact, thereby

⁴ To the extent this is the result of “informal deference” (i.e., giving persuasive weight to the district court's reasoning where appropriate), as the authors of this study theorize, that practice may continue without changing the formal standard of review.

unraveling the progress that has been made and leading to more expensive—and less accurate—decision-making.

Sixth, and finally, a more deferential standard of review does not guarantee that reduced uncertainty and earlier substantive evaluation of lawsuits and settlement. The number of patent disputes that reach litigation in the first place, let alone that are appealed to this Court, are far outnumbered by licensing negotiations that never result in litigation. Those disputes also are even more outnumbered by instances in which a person reads a patent and attempts to ascertain its scope. While a more deferential standard of review could possibly promote certainty and settlement once litigation has reached a certain stage (*e.g.* post-trial), such a standard could promote uncertainty before litigation if parties are left to wonder whether they can rely on the patent documents alone to understand the claim scope. *See Vitronics*, 90 F.3d at 1584 (competitors “must be able to rely on the patent documents themselves, without consideration of expert opinion that then does not even exist, in ascertaining the scope of a patentee’s right to exclude”) (quoting *Southwall Techs., Inc. v. Cardinal IG, Co.*, 54 F.3d 1570, 1578.

III. APPLICATION OF THE STANDARD OF REVIEW TO THE DISTRICT COURT’S “VOLTAGE SOURCE MEANS” RULING

A. The Law Governing Means-Plus-Function Claiming Controls the Outcome of This Appeal

When determining whether a claim is subject to the means-plus-function statute, § 112, ¶ 6, courts begin by looking to whether the drafter chose to use “means.” The word “means” is “central to the analysis,” and its presence triggers a presumption that the claim term is a means-plus-function term. *Inventio AG v. Thyssenkrupp Elevator Ams. Corp.*, 649 F.3d 1350, 1356 (Fed. Cir. 2011). The presumption is overcome only if the court concludes that “the claim itself” recites sufficient structure for performing the claimed function. *Sage Prods., Inc. v. Devon Indus., Inc.*, 126 F.3d 1420, 1427-28 (Fed. Cir. 1997). This entails assigning ultimate meaning and legal effect to claim language, to be reviewed de novo. *Wenger Mfg., Inc. v. Coating Machinery Sys., Inc.*, 239 F.3d 1225, 1231 (Fed. Cir. 2001); *Personalized Media Commc’ns., LLC v. Int’l Trade Comm’n.*, 161 F.3d 696, 702, 704 (Fed. Cir. 1998) (“In deciding whether either presumption [for or against means-plus-function claiming] has been rebutted, the focus remains on whether the claim as properly construed recites sufficiently definite structure to avoid the ambit of §112, ¶ 6.”).

Extrinsic evidence showing that the “means” term “has an understood meaning in the art” is relevant to overcoming the presumption. *Rembrandt*, 641

F.3d at 1341; *cf. CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1369 (Fed. Cir. 2002) (same for overcoming the presumption against means-plus-function claiming). While *relevant*, such evidence is not *dispositive*. The court still must determine “whether the evidence comports with the intrinsic record as a whole.” *Cf. Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1358-59 (Fed. Cir. 2004) (considering whether presumption against means-plus-function claiming was overcome by expert declaration); *Rembrandt*, 641 F.3d at 1341 (explaining that expert testimony was consistent with specification). Further, the claim does not necessarily overcome the presumption just because it recites “some” structure. *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1536 (Fed. Cir. 1991).

As the Panel Opinion observed, to rebut “the presumption triggered by use of the word ‘means’” the “claim itself” must recite sufficient structure for performing the function. Panel Op. at 8 (citing *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524, 531 (Fed. Cir. 1996)). It is not enough that the claim language indicates “what the recited means ‘does,’” the claim language must recite ““what it is structurally.”” *Id.* (quoting *Laitram*, 939 F.2d at 1536); *accord, e.g., Biomedino, LLC v. Waters Techs. Corp.*, 490 F.3d 946, 949-50, 953 (Fed. Cir. 2007) (evidence that a person skilled in the art would be capable of implementing a structure is *insufficient* as a matter of law to overcome the presumption). In fact, evidence that focuses on what structure(s) might be inferred or understood from the

functional language of a claim serves to confirm the presumption by showing that the patentee is attempting to claim in purely functional terms, unbounded by any structure. *Biomedino*, 490 F.3d at 949-53. These precedents control the outcome of this appeal.

B. The Panel Was Correct In Concluding as a Matter of Law that LBC Failed to Rebut the Presumption That “Voltage Source Means” Is Subject to Section 112, ¶6

The Panel correctly rejected LBC’s argument that the presumption that “voltage source means” invokes 112, ¶ 6 was rebutted by the Roberts and Bobel statements that the limitation, read as a whole, “connotes or suggests” the structure of a rectifier or a battery. Panel Op. at 9-10. The Panel observed that, unlike the expert testimony relied on by the Court in *Rembrandt*, LBC’s proffered evidence did not show that the term “voltage source” was “used synonymously with a defined class of structures at the time the invention was made.” *Id.* at 10. LBC’s evidence, therefore, “does not cure the absence of structural language in the claim itself.” *Id.* at 10. In fact, that evidence shows a *lack* of defined structures since, as LBC’s expert acknowledged, “there are many ways to provide DC voltage.” *Id.* In this respect, the Panel relied on the district court’s understanding of the facts:

The court found that, according to the limitation’s ordinary meaning, the claimed “voltage source means” corresponds to a class of structures: a rectifier for common applications in which the claimed device is used with an AC power line; and a battery or the like for less commonly used applications in which a DC power line is used.

Panel Op. at 5 (emphasis added).

The Panel also noted that the “key authorities”⁵ relied on by LBC were inapposite, because “in those cases, however, [the Court] started from the presumption that means-plus-function claiming did not apply because the claim limitations at issue did not include the word ‘means.’” Panel Op. at 10-11 (citing *inter alia* *Mass. Inst. of Tech. v. Abacus Software*, 462 F.3d 1344 (Fed. Cir. 2006)). In that regard, the district court failed to adhere to this Court’s requirement that “[t]he use of the term ‘means’” is “central to the analysis, as the terms ‘means’ and ‘means for’ have become closely associated with means-plus-function claiming” (*Inventio AG*, 649 F.3d at 1356).

The Panel’s analysis fully accords with the district court’s analysis in its initial August 19, 2010 claim construction ruling. A801-08. And it also fully accords with the *facts* set forth in the district court’s later December 2, 2010 amended claim construction ruling; indeed, the later ruling relied on the same evidence and did not disavow the earlier ruling’s recitation of the record evidence. The Panel parted company with the district court’s final claim construction because it failed to adhere to this Court’s direction that it is not enough in this context for a means-plus-function claim term to suggest or allow one skilled in the art to infer structure that could be used to perform the limitation’s recited function. To rebut

⁵ Quoting Brief of Plaintiff-Cross Appellant Lighting Ballast Control LLC, March 16, 2012 (“LBC Panel Br.”) at 39.

the presumption that arises from use of “means” claiming, the claim language much “recite” or be “self-descriptive” of structure. *See Rembrandt*, 641 F.3d at 1341. In reversing its earlier claim construction, the district court expressed its view that this distinction “exalted form over structure.” A22. This Court owes no deference to that conclusion.

After ruling that the “voltage source means” invokes §112, ¶6, the Panel next analyzed the term under the established law for construing means-plus-function claims. Panel Op. at 11-13. Notably, the district court and the Panel agreed that the specification of the ‘529 patent does not identify and link any structure to the “voltage source means.” *Id.*; *accord* A808-813. The Panel further correctly held that LBC’s expert testimony “merely demonstrates that several different structures could perform the recited function” and the fact that a skilled artisan could identify a structure that would work does not satisfy the quid-pro-quo of means claiming. *Id.* (citing *inter alia*, *Ergo Licensing, LLC v. CareFusion 303, Inc.*, 673 F.3d 1361, 1363-64 (Fed. Cir. 2012)). Accordingly, the “voltage source means” fails to meet the requirements of Section 112, ¶ 6 and is invalid as indefinite under Section 112, ¶ 2. Panel Op. at 13; A814-815.

C. Application of a Clearly Erroneous Standard of Review to the District Court’s Findings Would Not Change the Outcome

1. LBC did not offer evidence that “voltage source means” was a term of art with a specialized meaning at the time of the invention

As noted above, evidence that a “means” term has “an understood meaning in the art” may be relevant evidence towards overcoming the “means” presumption, but LBC presented no such evidence. Dr. Roberts and Bobel did *not* testify that the “voltage source means” limitation, or any part of that limitation, was a term of art at the time of the invention, and LBC presented no intrinsic or other evidence to that effect. Thus, the district court never found that any part of the “voltage source means” term had “an understood meaning in the art.” In its initial claim construction opinion, the district court noted that there was no “evidence, intrinsic or extrinsic, that the term ‘voltage source’ is commonly used in the electronic ballast industry to mean a rectifier.” A807-08. The district court further applied this Court’s precedents to conclude that the mere fact that persons of skill in art might be able to deduce structure from the recited function is not sufficient to overcome the means-plus-function presumption. A806-808.

In its December 2 Order, the district court misapplied the law on when a “means” presumption has been rebutted. LBC argued, and the district court accepted, that because the circuit of claim 1 would in many applications use a rectifier as a voltage source, “voltage source means” was sufficiently structural to

avoid means-plus-function treatment. Pet. at 6-7 (citing *Rembrandt*, 641 F.3d at 1340-41); *see also* A22-23. However, the expert testimony in *Rembrandt* is distinguishable since it confirmed that the terms in question “were commonly used in publications to identify *defined* algorithms (i.e., structure) known in the art.” Panel Op. at 9 (emphasis in original). In contrast to *Rembrandt*, LBC presented no evidence that the phrase “voltage source” or “voltage source means” has ever been used in publications, prior art patents, or anywhere else, to identify a rectifier or any other “defined structure.” *Id.*; *contrast Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311,1320 (technical dictionaries indicated that “circuit” provided sufficient structural meaning such that § 112, ¶ 6 presumptively did not apply).

2. The only factual evidence presented by LBC, while undisputed, was legally insufficient to overcome the presumption

Before the district court, LBC relied on Roberts and Bobel to argue that “one skilled in the art could ascertain and implement the structure necessary to supply the DC supply voltage, based on the particular application of the ballast in question.” A348. Both witnesses testified that one skilled in the art would know to use a rectifier as the “voltage source” when working with an AC power supply, or, alternatively, that any other direct DC source would suffice to perform the claimed function. *Id.* *See also* SA29-30.

LBC made that same position clear on appeal in its panel brief:

LBC's uncontroverted evidence showed that only two subtypes of devices can be a "voltage source" in that precise functional context: either a rectifier in the case of the vast majority of application, which rely on an AC power source; or a battery or the like (such as a DC generator or solar cell) in the unusual case of a direct supply of DC power (A820, A2906).

LBC Panel Brief at 39 (emphasis added). LBC's counsel maintained this position in oral argument to the Panel.

Neither Roberts nor Bobel identified any evidence to support a position that any of the claim language had a specialized meaning in the art, such that one skilled in the art would have a fixed understanding of some or all of the terms in the "voltage source means" limitation. *Compare Rembrandt* 641 F.3d at 1340–41 (expert's understanding corroborated with the specification, prior art patents, and technical papers). While stated under the guise of how a person of ordinary skill in the art would understand the limitation, LBC's extrinsic evidence is exactly the type of inventor and "patent expert" testimony regarding how claim language should be read that this Court held in *Markman I* "is entitled to no deference." 52 F.3d at 983 (testimony on how claims should be construed based on patent text "amounts to no more than legal opinion ... and is precisely the process of construction that the court must undertake."); *Phillips*, 415 F.3d at 1318.

Roberts and Bobel could not generate a factual dispute relevant to claim construction merely by testifying that they would understand that one or more

structures are capable of performing the recited function of the “voltage source means” limitation and would ascertain the correct “voltage source” to use based on the application. SA29-30; A480-81; A660-61; *see also* A348, A808, FN2 and A813, FN6. *Markman I*, 52 F.3d at 981 (opinion testimony as to claim construction does not create a question of fact “nor change or affect the de novo appellate review standard for ascertaining the meaning of the claim language”); *accord id.* at 998 (Rader, J., concurring) (testimony of patent law expert and inventor “cannot manufacture a fact issue where none exists”). Instead, LBC’s argument exemplifies how litigants might attempt to characterize any claim construction issue as a factual question simply offering expert testimony, contrary to this Court’s precedents, in an attempt to have a favorable construction upheld under a clear error standard.

Extrinsic evidence of the type relied on by LBC cannot be used to infer or to fill in structure where none exists in the language of the patent. *See Biomedino*, 490 F.3d at 953 (Fed. Cir. 2007) (“The inquiry is whether one of skill in the art would understand the specification itself to disclose a structure, not simply whether that person would be capable of implementing a structure”). This legal principle was applied correctly by the panel and by the district court in its initial claim construction, but incorrectly in the district court’s later ruling. *As in Biomedino*,

LBC's evidence actually "suggests a lack of a defined class of structures," that is, that the "voltage source means" limitation is purely functional. Panel Op. at 10.

Because no structure is identified in the claim language (or further in the specification itself and linked to the claim term), the "voltage source means" is invalid as indefinite under Section 112, ¶ 2. *Biomedino*, 490 F.3d at 950-53 (Fed. Cir. 2007). Accepting LBC's contrary position would allow a patent holder to assert that *any* structure capable of performing the recited function of the "voltage source means" limitation qualifies as the claimed "means," thereby amounting to prohibited functional claiming. *See id.* at 952 (quoting *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1211 (Fed. Cir. 2003)).

D. LBC's Arguments as to Why Changing the Standard of Review Would Change the Outcome All Fail

To defend the district court's final claim construction under a standard of clear error review, LBC must show that: (1) the district court found that the "voltage source means" limitation recites structure of a rectifier and only a rectifier; (2) that finding controls whether "voltage source means" is construed as a means-plus-function term; and (3) that finding was not clearly erroneous. Each premise must be accepted for LBC to prevail. Each premise is wrong.

1. The district court did not make the factual finding asserted in LBC’s Petition for En Banc Review

In seeking en banc review, LBC incorrectly asserted that the district court made a factual finding that “voltage source means” connotes “a rectifier and only a rectifier” (quoting only a portion of one sentence in the district court’s opinion) and further that the panel “acknowledged” that purported finding (emphasis added). Pet. at 7-8, Reply at 3-4. The district court never made that finding, however. Both district court claim construction decisions are to the contrary. A807-13; A21-23. Instead, consistent with LBC’s evidence, the district court found that a rectifier performs the recited function only “in common uses,” i.e., “when the source is a power line, which provides AC voltage.” A24. Other structures perform the recited function in other applications. A21-23. And none of those structures are synonymous with any claim term. As explained, this does not rebut the presumption of means-plus-function claiming.

2. The district court’s acceptance of Roberts’ statement that the limitation “connotes” a rectifier is not subject to deference and is insufficient

This Court should not defer to the district court’s ruling that “voltage source means” is not governed by §112, ¶6, simply because it “connotes” the structure of a rectifier. A construction of “voltage source means” as “rectifier” is a claim construction, and like any other claim construction, a legal determination rather than a factual finding. *Wenger Mfg.*, 239 F.3d at 1231; *Personalized Media*, 161

F.3d at 704. As explained in Section II.B.4, *supra*, a determination of how a hypothetical person of ordinary skill in the art would interpret a claim is a legal ruling. LBC’s argument exemplifies how litigants may seek to characterize any claim construction issue as a factual question by offering expert testimony on claim meaning and scope, contrary to this Court’s precedents, in an attempt to have a favorable construction upheld under a clear error standard.

LBC did not convert construction of the “voltage source means” limitation into a factual inquiry by offering Roberts’ and Bobel’s statements that they would understand that one or more structures are capable of performing the recited function of the limitation and could ascertain the correct “voltage source” to use based on the application. SA29; A348; A480-81; A660-61. *Markman I*, 52 F.3d at 983; *id.* at 998 (Rader, J., concurring). The district court relied on those statements to alter the normal meaning and legal effect of the claim language. It thereby failed to adhere to this Court’s claim construction principles, a legal error reviewed *de novo*. *Phillips*, 415 F.3d at 981 (“Extrinsic evidence is to be used for the court’s understanding of the patent, not for the purpose of varying or contradicting the terms of the claims”); *Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1300 FN2 (Fed. Cir. 2005).

In addition, even assuming that “voltage source means” connotes “some” structure, it does not follow that the term escapes § 112, ¶ 6. *Laitram*, 939 F.2d at

1536. Nothing in the claimed function, or anywhere else in the intrinsic record, limits the claim to applications using AC power. A199 (recited function is “providing a constant or variable...”; no mention of AC power or converting AC to DC). Thus, even accepting that the claim language “connotes” a rectifier when used with AC, the claim is *not* limited to AC applications, and so “voltage source means” would not be limited to a rectifier, or any other “sufficiently definite structure or class of structures” to avoid means-plus-function treatment.

3. Had the district court found that the “voltage source means” limitation recites the structure of a rectifier and only a rectifier, it would have been clearly erroneous

Even if district court had rested its claim construction ruling on a subsidiary “finding” that “voltage source means” connotes the structure of a rectifier and no other structure, this finding would be clearly erroneous and contradicted by the record evidence. *See Smithkline Diagnostics v. Helena Labs*, 859 F.2d 878, 882-885 (Fed. Cir. 1988). The record evidence is clear that, as used in the ‘529 patent, “voltage source means” describes any and all classes of structures that could perform the recited function of the limitation, including a rectifier, a battery, a DC generator, or any other source of DC voltage. LBC’s own witnesses testified to that effect. Dr. Roberts averred that one skilled in the art would know that “there are lots of ways to generate DC” for a ballast other than rectifying AC, and that the “voltage source means” could be a battery, a DC generator, a solar cell, “or

any other sources of DC power supply.” Panel Op. at 10, 12; *see also* A1618-1623; A1629 (“It’s totally irrelevant where the DC comes from for the operation of the ballast.”); *see also* A1621-1630. Likewise, Bobel testified that the “voltage source means” could be a rectifier, a battery, or any number of other classes of structures that are capable of supplying DC current, such as a DC generator. A659-61. Mr. Bobel further testified that the circuit of the ‘529 patent is “a universal application [that] suggests all type of power supplies.” (SA37-38). A fact finding contrary to this evidence could not withstand even “clear error” standard. *See Apex Computer Corp. v. Nintendo Co.*, 102 F.3d 1214, 1221 (Fed.Cir.1996) (using Apex’s own expert testimony against Apex, there was no substantial evidence of infringement).

Moreover, at the district court and before the Panel, LBC sought to make clear that one skilled in the art would know that the claimed function could be performed by a rectifier, to convert AC to DC, or by a DC source, such as a battery or generator. *See, e.g.*, LBC’s claim construction brief (A348); its motion for reconsideration (SA97); its response to ULT’s summary judgment motion (A2906). Indeed, in its panel brief, LBC specifically called out that the “uncontroverted evidence” before the district court was that one skilled in the art would understand “voltage source means” to be either a rectifier or some other

class of structure that produces DC current (“a battery or the like”). LBC Brief at 39.

Thus, that multiple classes of structure could perform the function of the “voltage source means” limitation was never in dispute. *See* A18. The district court’s statement that the limitation “connotes” a rectifier, therefore, at most indicates that a person of ordinary skill in the art could deduce from the functional language of the limitation that a rectifier is one of the structures capable of providing DC voltage to perform the recited function. *See* A22-24.

E. Under Either De Novo or Clear Error Review, There Is No Basis for Giving Persuasive Weight to the District Court’s Amended Claim Construction Ruling

Here, the district court’s ruling on the “voltage source means” does not hold persuasive weight. Unlike in other instances in which a district court might have an advantage over this Court, the district court did not hold a claim construction hearing or live tutorial, sift through mountains of evidence, or evaluate the live testimony of any witnesses. *Compare Cybor*, 138 F.3d at 1477 (Rader, J., dissenting) (noting that if claim language and specification do not resolve claim construction, trial courts have the ability to acquire and evaluate evidence, formally question technical experts, receive technology tutorials, and utilize court-appointed experts); *Retractable Techs., Inc. v Becton, Dickinson and Co.*, 659 F.3d 1369, 1374 (Fed. Cir. 2011) (O’Malley, J., dissenting) (district judges may conduct live

claim construction hearings, sometimes extending for days, with argument and testimony). The record consisted of the patent, the prosecution history, Dr. Roberts' nine page-long declaration, and a few excerpts from Mr. Bobel's deposition transcript.

Regardless, based on a review of precisely the same record and arguments, the reasoning of the district court's December 2 ruling changed 180 degrees from the district court's own reasoning in the August 16 Order. In reaching the polar opposite construction, the district court improperly placed greater emphasis on LBC's expert and inventor testimony and misapplied legal precedent. A18, A22-23. If any persuasive weight is given to the district court, it should be to its original, well-reasoned opinion holding the "voltage source means" term indefinite. Moreover, on appeal, the Panel had the same opportunity as the district court to review this full record and, unlike the district court, question counsel. Therefore, the en banc Court should adopt the panel's unanimous ruling that the "voltage source means" term is invalid as indefinite.

CONCLUSION

For the reasons set forth above, the judgment of the district court should be reversed, and this action should be remanded for entry of judgment in favor of ULT.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on May 20, 2013, I caused the Defendant-Appellant's Rehearing En Banc Brief to be filed with the court using CM/ECF which will automatically serve counsel who are registered for CM/ECF.

Dated: May 20, 2013

/s/ Steven J. Routh
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Dated: May 20, 2013

ORRICK, HERRINGTON & SUTCLIFFE, LLP

By /s/ Steven J. Routh
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General Information

Court	U.S. Court of Appeals for the Federal Circuit; U.S. Court of Appeals for the Federal Circuit
Federal Nature of Suit	Property Rights - Patent[830]
Docket Number	12-01014
Status	CLOSED