

# United States Court of Appeals for the Federal Circuit

2008-1128, -1136

MONOLITHIC POWER SYSTEMS, INC.,

Plaintiff/Counterclaim Defendant-  
Cross Appellant,

and

ASUSTEK COMPUTER, INC.,

Counterclaim Defendant-Cross  
Appellant,

and

ADVANCED SEMICONDUCTOR MANUFACTURING CORPORATION, LTD.,

Counterclaim Defendant-  
Appellee,

v.

O2 MICRO INTERNATIONAL LIMITED,

Defendant/Counterclaimant-  
Appellant.

Dan L. Bagatell, Perkins Coie Brown & Bain P.A., of Phoenix, Arizona, argued for plaintiff/counterclaim defendant-cross appellant. With him on the brief were Mark A. Flage and Dean G. Dunlavy, Latham & Watkins LLP, of Los Angeles, California.

Thomas J. Friel, Jr., Cooley Godward Kronish LLP, of Palo Alto, California, argued for counterclaim defendant-cross appellant ASUSTeK Computer, Inc., and counterclaim defendant-appellee Advanced Semiconductor Manufacturing Corporation Limited.

Henry C. Bunsow, Howrey LLP, of San Francisco, California, argued for defendant-counterclaimant-appellant. With him on the brief were Korula T. Cherian and Duane H. Mathiowetz, and Henry C. Su and Richard C. Lin, East Palo Alto, California; and Richard Stanley, of Houston, Texas

Appealed from: United States District Court for the Northern District of California

Judge Claudia Wilken

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Appeals from the United States District Court for the Northern District of California in Consolidated Case Nos. 04-CV-2000 and 06-CV-2929, Judge Claudia Wilken.

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DECIDED: MARCH 5, 2009

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Before RADER, PLAGER, and GAJARSA, Circuit Judges.

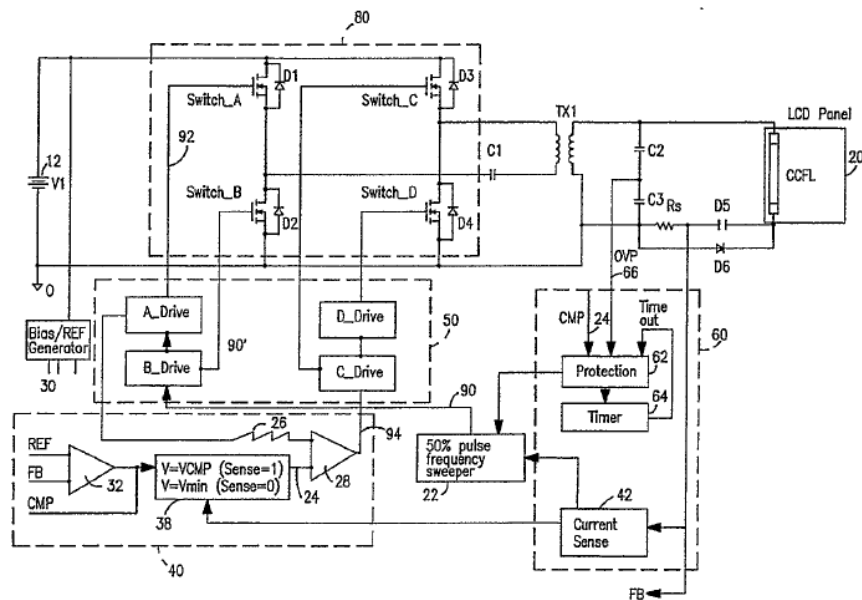
RADER, Circuit Judge.

In a jury trial, the United States District Court for the Northern District of California appointed an expert witness under Fed. R. Evid. 706(a) to testify on contested issues.

Based on that testimony and considerable other evidence, the jury found all asserted claims of O2 Micro International Limited's ("O2 Micro's") U.S. Patent No. 6,396,722 ("722 patent") obvious under 35 U.S.C. § 103. Because the district court did not abuse its discretion in appointing an expert under the Federal Rules, and because this court finds no error in the district court's denial of O2 Micro's motion for judgment as a matter of law on obviousness, this court affirms the judgment of the district court.

I

O2 Micro's '722 patent, entitled "High-Efficiency Adaptive DC/AC converter," relates to power inverter circuitry for laptop computers. Laptops must be capable of operating on direct current ("DC") power sources such as batteries. However, the cold cathode fluorescent lamps ("CCFLs") for backlit laptop screens require high voltage, alternating current ("AC") power. The disclosed circuitry converts low voltage DC battery power into higher voltage AC power with the help of feedback circuitry that precisely controls the amount of power delivered from the battery to the CCFL. Figure 2 of the '722 patent illustrates the converter circuit in question.



Switches A-D define a “full-bridge” switch configuration. Diagonally opposing pairs of switches (A and D, B and C) define alternating conduction paths for current to reach the CCFL load (20) from the battery source V1 (12). The full bridge ‘chops up’ direct current into alternating current by requiring current to alternately flow through the A-D and B-C paths. By selectively turning on the pairs of switches, the circuitry controls the amount of power delivered to the load.

A feedback signal (“FB”) indicates the current being supplied to the CCFL at any given time. In turn, a reference signal (“REF”) indicates desired load conditions. A comparator (32) compares the feedback signal with the reference signal to produce a comparison signal (“CMP”). This CMP signal triggers adjustments to the load power by adjusting the amount of overlap between the switches. Thus, the circuit regulates outputted power much as a home thermostat maintains a steady-state temperature.

Additionally, the converter circuit includes over-voltage protection mechanisms that reduce the power supplied to the CCFL in short-circuit or open-circuit situations. As shown in Figure 2, a current sensing comparator (42) compares the presently supplied current (FB) with a reference value reflecting the minimum or maximum current permitted by the system. If FB is within a permissible range, the comparator allows the current to flow unhindered through the output switch (38). However, when FB is in an undesirable range, the comparator substitutes a minimum voltage (“Vmin”) at the output switch (38), reducing the CCFL’s power to a safe level.

## II

In May 2004, Monolithic Power Systems, Inc. (“MPS”) filed suit in the Northern District of California seeking a declaratory judgment finding O2 Micro’s ’722 patent

invalid, not infringed, and unenforceable. O2 Micro counterclaimed for infringement and added Advanced Semiconductor Manufacturing Corp. (“ASMC”), MPS’s foundry, as a counter-defendant. O2 Micro’s counterclaim alleged that several models of MPS inverter controllers infringe claims 1, 2, 9, 12, 14 and 18 of the ’722 patent.

Five months later, O2 Micro sued MPS in the Eastern District of Texas, accusing MPS of infringing U.S. Patent No. 6,804,129 (“the ’129 patent”). O2 Micro later amended its complaint to also accuse ASMC of infringing the ’129 patent and to accuse ASUSTeK Computer Inc. (“ASUS”) of infringing U.S. Patent No. 6,259,615 (“the ’615 patent”), as well as the ’722 and ’129 patents. In March 2006, the Texas court transferred O2 Micro’s case to the Northern District of California, which in turn consolidated the two cases. The district court in California then dismissed O2 Micro’s claims regarding the ’129 patent with prejudice, and granted summary judgment of non-infringement of the ’615 patent in favor of ASUS.

On Oct. 27, 2006, the district court convened a case management conference and set a trial date for Apr. 30, 2007. At the conference, the court expressed its frustration with the technical complexities of the ’722 patent.

On the technical issues here . . . I find this extremely difficult to understand. And the notion that a jury is going to understand it, to me, is foolishness. You can talk for months and the jury isn’t really going to understand this in the sense of being able to make a reasoned, rational decision about it.

They will make a decision, we hope. Maybe they will hang because they’ll say that we can’t possibly understand this, but in my experience, they make a decision. But what is it based on? . . . It is kind of trial by ordeal or by sort of a champion, like a jousting contest rather than on the actual scientific merits of who is right and who is wrong.

Hr'g Tr. 35:3-8, Oct. 27, 2006. The court entertained the idea of appointing an independent expert under Fed. R. Evid. 706 to testify "on the electrical engineering aspects" of the case. Id. at 35:22. This expert, in the court's estimation, "would essentially, I can't say decide the case, but would testify and [the jury] would be told 'This is the court's expert on these points.'" Id. at 36:2-4. O2 Micro objected, while MPS expressed its approval of the idea.

On Jan. 17, 2007, the district court ordered the parties to confer about candidates to serve as the Rule 706 expert. The parties ultimately agreed, after a series of disagreements, upon an expert, Dr. Enrico Santi. The district court outlined a protocol detailing what information to provide Dr. Santi and when to complete discovery regarding his opinions.

Trial commenced as scheduled in April 2007. MPS and the other appellees presented evidence that the asserted claims of the '722 patent were obvious under 35 U.S.C. § 103. Further, MPS presented evidence that the '722 patent was invalid under the on-sale bar of 35 U.S.C. § 102(b). The court-appointed expert, Dr. Santi, offered testimony largely consistent with MPS's theory of the case, including MPS's position that it did not infringe O2 Micro's asserted claims. The district court instructed the jury that Dr. Santi was "an independent witness retained by the parties jointly at the court's direction to assist in explaining the technology at issue in this case." Trial Tr. 96:21-24, Apr. 30, 2007.

On May 15, 2007, the jury rendered a verdict favorable to MPS and the appellees. The jury found the asserted claims invalid under both MPS's obviousness and on-sale bar theories. Additionally, the jury found no literal infringement of the

claims, but found infringement under the doctrine of equivalents as to claims 12 and 14. The district court denied O2 Micro's motions for a new trial and for judgment as a matter of law. Monolithic Power Sys., Inc. v. O2 Micro Int'l Ltd., No. C 05-2000 CW, 2007 WL 3231709, at \*7 (N.D. Cal. Oct. 30, 2007). This court has jurisdiction over O2 Micro's timely appeal under 28 U.S.C. § 1295(a)(1).

### III

The Federal Rules of Evidence allow a court to appoint an expert either "on its own motion or on the motion of any party." Fed. R. Evid. 706(a). Rule 706(a) provides:

The court may appoint any expert witnesses agreed upon by the parties, and may appoint expert witnesses of its own selection . . . A witness so appointed shall be informed of the witness' duties by the court in writing, a copy of which shall be filed with the clerk, or at a conference in which the parties shall have opportunity to participate. A witness so appointed shall advise the parties of the witness' findings, if any; the witness' deposition may be taken by any party; and the witness may be called to testify by the court or any party. The witness shall be subject to cross-examination by each party, including a party calling the witness.

#### Id.

The appointment of an independent expert is a procedural ruling reviewable under regional circuit law. See TechSearch L.L.C. v. Intel Corp., 286 F.3d 1360, 1376-77 (Fed. Cir. 2002) (stating standard of review regarding the appointment of a non-Rule 706 technical advisor). The United States Court of Appeals for the Ninth Circuit reviews the decision to appoint a Rule 706 expert for an abuse of discretion. Walker v. Am. Home Shield Long Term Disability Plan, 180 F.3d 1065, 1071 (9th Cir. 1999); see also Daubert v. Merrell Dow Pharms. Inc., 509 U.S. 579, 595 (1993) (stating in dicta that "Rule 706 allows the court at its discretion to procure the assistance of an expert of its own choosing.").

While commentators have observed that district courts rarely make Rule 706 appointments, see, e.g., 4 Jack B. Weinstein & Margaret A. Berger, Weinstein's Federal Evidence § 706.02[2] (2d ed. 2005) ("It is indisputable that court appointment of experts is a rarity."); 29 Charles Alan Wright et al., Federal Practice and Procedure § 6304 (2d ed. 2002) ("The exercise of Rule 706 powers is rare under virtually any circumstances."), this court acknowledges that the Federal Rules do authorize those appointments. See, e.g., United States v. Green, 544 F.2d 138, 145 (3d Cir. 1976) ("[T]he inherent power of a trial judge to appoint an expert of his own choosing is clear."); Wright, supra, § 6302 ("The provision is a specific application of the general power of judges under Rule 614 to call and interrogate witnesses."); 1 Charles McCormick, McCormick on Evidence § 8 (4th ed. 1992) (discussing a judge's "ancient power to call an expert . . . to give impartial testimony to aid him or the jury in resolving a scientific issue."); Fed. R. Evid. 706 advisory committee's note ("The inherent power of a trial judge to appoint an expert of his own choosing is virtually unquestioned.").

O2 Micro argues that the district court's appointment of Dr. Santi as an independent expert unduly burdened its Seventh Amendment right to a trial by jury. According to O2 Micro, the district court appointed Dr. Santi because it believed that the technical issues were too complex for a jury, in violation of established Ninth Circuit precedent that there is no "complexity exception" to a litigant's Seventh Amendment rights. See, e.g., In re U.S. Fin. Sec. Litig., 609 F.2d 411, 432 (9th Cir. 1979) ("[W]e do not believe any case is so overwhelmingly complex that it is beyond the abilities of a jury."). This court's review of this record, however, detects no denial or encumbrance of O2 Micro's jury demand or Seventh Amendment rights. Although the district court's



extemporaneous comments at the case management conference suggested a belief that the independent expert would greatly influence the jury's determination, the district court properly administered the standards set by Rule 706.

In accord with Rule 706(a), the court allowed the parties to show cause why an expert witness should not be appointed, and over O2 Micro's objections, instructed the parties to nominate candidates and confer upon a mutually agreeable witness. Order Concerning Court-Appointed Expert, Jan. 17, 2007. Further in accord with 706(a), the district court provided detailed written instructions to Dr. Santi regarding his duties, and ordered Dr. Santi to make himself available for depositions and for examination at trial. Monolithic Power Sys. Inc. v. O2 Micro Int'l Ltd., No. C 04-2000 CW (N.D. Cal. Mar. 12, 2007) (order concerning duties and instructions for court-appointed expert). In accord with 706(b), the court instructed the parties to share Dr. Santi's reasonable fees and expenses. Id. And as per 706(d), the court did not limit in any way the parties' ability to call their own experts, and allowed these experts to attack, support, or supplement the testimony of Dr. Santi.

The record shows that the trial court gave Dr. Santi only thirty-five days to review all relevant materials and prepare a report. The strictures of this time frame, however, do not amount to an abuse of discretion. Dr. Santi testified repeatedly that he had enough time to complete his analysis. See, e.g., Trial Tr. 345, May 1, 2007. Dr. Santi spent over 75 hours on his analysis, in addition to the time he spent writing a 27-page report including several detailed claim charts. Id. at 245. Further, he made himself available for depositions and met with counsel for both sides before trial to prepare a technology tutorial for the court.

This court does not perceive an abuse of discretion in the district court's disclosure of Dr. Santi's independent status to the jury. The framers of the Federal Rules expressly contemplated: "[I]n the exercise of its discretion, the court may authorize disclosure to the jury of the fact that the court appointed the expert witness." Fed. R. Evid. 706(c). The district court properly exercised this discretion, taking care to instruct the jury that it should not assign Dr. Santi's opinion greater inherent weight on accord of his independent status.

You should not give any greater weight to Professor Santi's opinion testimony than to the testimony of any other witness simply because the court ordered the parties to retain an independent witness. In evaluating his opinion, you should carefully assess the nature of and basis for Professor Santi's opinion just as you would do with any other witness' opinion.

Trial Tr. 96:23-97:4, Apr. 30, 2007. Of note, the jury's verdict did not entirely track Dr. Santi's opinions. Whereas Dr. Santi opined that only claim 12 of the '722 patent was obvious, the jury found all claims obvious. Moreover, whereas Dr. Santi opined that only claim 12 was infringed under the doctrine of equivalents, the jury found both claims 12 and 14 infringed under the doctrine.

Ultimately, O2 Micro's arguments that Dr. Santi's testimony relieved the jury of its tasks are policy arguments against Rule 706. However, Congress entertained and rejected these arguments during the framing of Rule 706. See, e.g., Hearings on Proposed Rules of Evidence Before the Subcomm. on Criminal Justice of the H. Comm. On the Judiciary (Supp.), 93d Cong., 1st Sess., ser. 2, 142 (1973) (Position Paper of Ass'n of Trial Lawyers of Am.) ("Perhaps the most fundamental flaw in the proposed rule is its willingness to depart from fundamental belief in the efficacy of the jury system as such."); id. at 238 (Letter from Thomas A. Wallace) ("This is contrary to the advocacy

system of justice which has prevailed in our country. Such experts tend to become in the eyes of the jury anointed, not appointed.”). Furthermore, the Supreme Court has long recognized the constitutionality of court-appointed experts. See, e.g., Ex parte Peterson, 253 U.S. 300, 312-13 (1920).

The predicaments inherent in court appointment of an independent expert and revelations to the jury about the expert’s neutral status trouble this court to some extent. Courts and commentators alike have remarked that Rule 706 should be invoked only in rare and compelling circumstances. In re Joint E. & S. Dists. Asbestos Litig., 830 F. Supp. 686, 693 (E.D.N.Y. 1993) (noting that “use of Rule 706 should be reserved for exceptional cases in which the ordinary adversary process does not suffice”); Wright, supra, § 6302 (“Rule 706 powers are properly invoked where the issues are complex and the parties’ experts have presented conflicting testimony that is difficult to reconcile or have otherwise failed to provide a sufficient basis for deciding the issues.”). However, under Ninth Circuit law, district courts enjoy wide latitude to make these appointments. This court perceives no abuse of discretion in this case where the district court was confronted by what it viewed as an unusually complex case and what appeared to be starkly conflicting expert testimony. See, e.g., Walker, 180 F.3d at 1071 (finding no abuse of discretion in Rule 706 appointment where the scientific evidence was “confusing and conflicting” and the appointment “assist[ed] the court in evaluating contradictory evidence about an elusive disease of unknown cause”).

#### IV

The jury found all asserted claims of O2 Micro’s ’722 patent obvious under 35 U.S.C. § 103. When reviewing a district court’s decision to deny JMOL as to

obviousness, “this court reviews a jury’s conclusions on obviousness, a question of law, without deference, and the underlying findings of fact, whether explicit or implicit within the verdict, for substantial evidence.” LNP Eng’g Plastics, Inc. v. Miller Waste Mills, Inc., 275 F.3d 1347, 1353 (Fed. Cir. 2001). Such underlying factual questions include the scope and content of the prior art, the differences between the prior art and the claims at issue, and the level of ordinary skill in the art. Dippin’ Dots, Inc. v. Mosey, 476 F.3d 1337, 1343 (Fed. Cir. 2007) (citing Graham v. John Deere Co., 383 U.S. 1, 17 (1966)). On appeal, O2 Micro disputes the underlying factual findings implicit in the jury’s obviousness verdict. In particular, O2 Micro argues that substantial evidence does not support the jury’s finding that U.S. Patent No. 5,923,129 (the “Henry” patent) discloses various features of the ’722 patent’s claims.

The Henry patent carries the title, “Apparatus and Method for Starting a Fluorescent Lamp.” Like the ’722 patent, Henry teaches a power conversion circuit for driving a CCFL load. Henry patent col.2 ll.6-10. Like the feedback functionality of the ’722 patent, Henry teaches a “feedback circuit which detects the total current passing through the CCFL . . . so that the controller may control the current passing through the CCFL.” Id. at col.2 ll.33-37. Further, like the ’722 patent’s full-bridge inverter, Henry discloses “generat[ing] two output signals to drive a pair of switching transistors connected to opposite terminals of the centertapped primary of a transformer.” Id. at col.2 ll.38-41. O2 Micro’s appeal disputes whether Henry teaches three specific elements of its asserted claims, namely, the “flow-through switch” of claims 2 and 9; the “second state” limitation of claims 1, 2, 9, and 18; and the “only if” limitation of claims 12 and 14.

#### A. The “Flow-through Switch” Limitation

Claims 2 and 9 require

a flow-through switch coupled to said error amplifier and having first conduction state wherein the output of said switch comprises a DC signal indicative of said first state of said second pulse signal, and a second conduction state wherein the output of said switch comprises a DC signal indicative of said second state of said second pulse signal.

'722 patent col.11 ll.33-39. The '722 patent's specification describes a “switch 38” for regulating current provided to the CCFL. Id. at col. 8 ll.7-33. The circuitry generates a comparison signal CMP, which reflects the difference between reference signal REF (desired current to flow through the lamp) and the feedback signal FB (indicating actual current flowing through the lamp). Id. at col.8 ll.4-6. When CMP is within a permitted range (normal operation), switch 38 permits CMP to “flow through,” delivering power to the load in proportion to the feedback signal. Id. at col.8 ll.17-22. However, when CMP is outside the permitted range (e.g., an open circuit or short circuit), switch 38 blocks CMP from flowing through to the load, instead supplying a minimal voltage “Vmin” until permissible current is once again flowing. Id. col.8 ll.22-31. In accordance with this disclosure, the district court defined a flow-through switch as “a switch which passes a selected voltage signal to its output mode.” Appellees relied exclusively on the Henry patent as showing the claimed flow-through switch in the prior art.

Substantial evidence is “more than a mere scintilla” and is “such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.” Z4 Techs., Inc. v. Microsoft Corp., 507 F.3d 1340, 1353 (Fed. Cir. 2007). Substantial evidence supports the conclusion that the Henry patent teaches a flow-through switch. MPS's expert, Dr. Horenstein, testified that “comparator 740” in Figure 8B of the Henry

reference teaches a flow-through switch as claimed in the '722 patent. Trial Tr. 1200:13-19, May 9, 2007. Despite O2 Micro's current assertions that Henry's comparator 740 only outputs predetermined states, rather than passing through voltages, O2 Micro did not cross-examine Dr. Horenstein on his assertion as to this point, and O2 Micro's own expert did not testify on this subject at all. Thus, the record stands un rebutted with evidence showing that Henry included a flow-through switch. O2 Micro's attorney arguments on appeal cannot create an evidentiary gap. See Johnston v. IVAC Corp., 885 F.2d 1574, 1581 (Fed. Cir. 1989) (noting that "Attorneys' argument is no substitute for evidence.").

#### B. The "Second State" Limitation

Claims 1, 2, 9, and 18 require an inverter with a

second pulse signal having a first state which overlaps said first pulse signal to deliver an amount of power to said load determined by said feedback signal, and a second state which overlaps the first signal with a predetermined minimum overlap to deliver a predetermined minimum power to the load.

'722 patent col.11 ll.22-27 (emphasis added). The claimed "second state" relates closely to the function of the flow-through switch. When CMP is outside a permissible range, (e.g., during an overvoltage or open lamp condition), the disclosed circuitry enters into the second state—shutting off feedback control and instead supplying minimum power to the CCFL load until permissible current once again flows through the CCFL. Id. at col.8 ll.22-31. O2 Micro challenges, on substantial evidence grounds, whether the Henry patent discloses this second state. O2 Micro does not appear to challenge whether Henry has a non-feedback-controlled second state, but more

specifically, whether Henry teaches a second state that delivers a predetermined minimum amount of power to the load.

MPS's expert Dr. Horenstein testified that the "sawtooth generator" of the Henry patent teaches the claimed "second state." The Henry patent itself states that this sawtooth generator produces a "reduced duty cycle . . . to prevent overvoltage and overheating of the transformer . . . ." Henry patent col.14 ll.37-39. Dr. Horenstein testified that during startup or fault conditions, Henry shuts off feedback and reverts to a "minimum power output state" produced by the sawtooth generator. Trial Tr. 1196:8-13, May 9, 2007. Horenstein further testified that when the Henry patent detects an overvoltage condition, "it grounds the input of the comp pin, which leads to the minimum possible pulse that the controller can produce." Id. at 1196:3-5 (emphasis added).

O2 Micro's expert Dr. Rhyne provided conflicting testimony. He testified that Henry's second state outputs a minimal zero voltage only half the time:

[The] sawtooth generator . . . does not disable under an open-lamp condition the operation of this inverter all the time. Instead, it does it only 50 percent of the time . . . It just says, 'Hey, I don't want to get too much voltage, so I am going to just turn this thing off, which would be very much like some of these claims require. But then the other half of the time it just turns it right back on. So it is not something that completely turns off the operation if you detect the open-lamp condition. It just sort of cripples it, but it allows it to run half of the time as it would otherwise.

Id. at 1299:25-1300:13.

Dr. Horenstein's testimony provides substantial evidence for the jury to have found the "second state" limitation in the prior art. Indeed, Dr. Horenstein acknowledged and seems to have embraced Dr. Rhyne's characterization of Henry's sawtooth generator as consistent with the claimed second state:

The sawtooth is used for part of the reaction of the system to the open lamp, but the output of that sawtooth generator is a logical signal, a one or a zero, a high or a low which sets the controller into a minimum output state.

Id. at 1198:4-7. Thus, the jury was entitled to credit Dr. Horenstein's testimony regarding Henry's "reduced duty cycle" over Dr. Rhyne's differing testimony. This court finds no reason to disturb that implicit factual finding.

### C. The "Only If" Limitation

Claims 12 and 14 of the '722 patent require a feedback circuit which delivers power to the CCFL load "only if said feedback signal is above a predetermined threshold." '722 patent col.12 ll.49-50. Dr. Santi and Dr. Horenstein concurred that the Henry patent teaches this limitation because it teaches disengaging feedback and going into a fixed minimal voltage output state when the feedback signal drops below a predefined threshold. Trial Tr. 338 (May 1, 2007) (Santi); Trial Tr. 1202 (May 9, 2007) (Horenstein). The specification of the Henry patent corroborates their testimony by teaching that power is delivered to the CCFL only when the current feedback signal is above "VREF," which is defined as a "stable reference voltage." Henry patent col.13 ll. 38-57, col.10 ll.48-51. Accordingly, substantial evidence supports a finding that Henry teaches the claimed "only if" limitation.

In sum, substantial evidence supports the factual underpinnings implicit in the jury's verdict. This court "presume[s] that the jury resolved the underlying factual disputes in favor of the verdict winner and leave[s] those presumed findings undisturbed if they are supported by substantial evidence." Jurgens v. McKasy, 927 F.2d 1552, 1557 (Fed. Cir. 1991). However, O2 Micro argues that even if substantial evidence supports the finding that every element of the asserted claims was in the prior art, the



verdict must fail as a matter of law because Drs. Santi and Horenstein articulated no reasons for combining the cited references. To the contrary, upon review of the entire record, this court finds convincing the testimony of Drs. Santi and Horenstein that one of ordinary skill in the art would have had ample motivation to combine known elements in the claimed manner. These experts opined that inverter circuit designers routinely mix and match bridge topologies, over-voltage safety protections, and feedback methods – all elements of the asserted claims and all conceded by O2 Micro to be well known in the art. For example, Dr. Horenstein testified that a skilled artisan would have been motivated to combine the full bridge inverter shown in Figure 2 of the Henry patent with the sawtooth generator in Henry’s Figure 8, which implements the claimed open lamp control because

whether one implements this kind of open lamp control with a full bridge or a half-bridge is immaterial. The selection of the bridge is like picking a lego out of a lego box. You can implement the safety functions pertinent to open lamp with a full bridge, or a half bridge. And, in fact, this patent talks about doing it with both full bridge and half-bridge. So tying this controller to a full bridge is not a great leap of faith.

Trial Tr. 1196:20-1197:2 (May 9, 2007).

Section 103 of Title 35 requires this court to inquire “whether the improvement is more than the predictable use of prior-art elements according to their established functions.” KSR Int’l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1740 (2007). Applying the law to the facts in the record, this court answers the inquiry in the negative and concludes that the asserted claims of the ’722 patent are obvious as a matter of law.

#### IV

Because this court finds that the district court did not abuse its discretion in appointing Dr. Santi as an independent expert under Federal Rule of Evidence 706, and

because this court affirms the district court's denial of O2 Micro's JMOL motion as to obviousness under § 103, this court need not reach the other issues raised by O2 Micro's appeal. Accordingly, this court affirms the judgment of the district court.

AFFIRMED

NO COSTS