IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO

Civil Action 00-B-272 (PAC)

LASER TECHNOLOGY, INC., a Delaware corporation,

Plaintiff,

v.

NIKON, INC., a New York corporation, and ASIA OPTICAL CO., INC., a Taiwanese Corporation,

Defendants.

RESPONSE TO DEFENDANTS' MOTION PURSUANT TO FED. R. CIV. P. 50(b) AND 59 FOR JUDGMENT AS A MATTER OF LAW OR A NEW TRIAL

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Plaintiff Laser Technology, Inc. ("LTI"), by and through its undersigned counsel, respectfully submits this Response to Defendants' Motion Pursuant to Fed. R. Civ. P. 50(b) and 59 for Judgment as a Matter of Law or a New Trial. LTI further states as follows:

I. PRELIMINARY STATEMENT

An eight person jury in this case unanimously found that Defendants Nikon, Inc. ("Nikon") and Asia Optical Company, Inc. ("Asia Optical") both infringed, literally and/or under the doctrine of equivalents, each and every one of the 22 patent claims that were submitted to them. Importantly, the jury also unanimously found by clear and convincing evidence that Nikon willfully infringed the '779 Patent, and Asia Optical willfully infringed all of the patents in suit. Defendants now raise the following four arguments in their effort to avoid the jury's verdict:

> **One:** The Court erred in its construction of the claim terms "precision timing section" and "assigning a pulse value," and, had those claim terms been properly construed, there would have been insufficient evidence to support the jury's verdict on Claim 8 of the '910 Patent and Claims 11-14 and 16 of the '779 Patent;
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> **Two:** Because diode 316 is absent in the accused device, there was insufficient evidence at trial of an automatic noise threshold adjustment circuit to support the jury's finding of equivalency infringement on Claims 18 and 25-26 of the '779 Patent and Claims 1-13 of the '077 Patent;
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> **Three:** There was insufficient evidence at trial under the function-way-result or interchangeability tests to support the jury's finding of equivalency infringement on Claims 18 and 25-26 of the '779 Patent, Claim 8 of the '910 Patent, and Claims 1-13 of the '077 Patent; and
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> **Four:** The Court erred when it allowed LTI to use Exhibit 130, the Bushnell brochure, during closing argument "improperly."

The first three arguments are raised as a basis for renewed judgment as a matter of law under Rule 50(b) and, in the alternative, a new trial under Rule 59. *See* Rule 50/59 Motion at 19, 24,

26. The last argument, which relates to the use of Exhibit 130, appears to be (and as a matter of law can only be) raised as a basis for a new trial under Rule 59. *See id.* at 29.

At the outset, this Court should deny Defendants' motion for renewed judgment as a matter of law due to Defendants' non-compliance with Rule 50. All of the Rule 50(b) arguments have been waived because Defendants failed to renew their Rule 50(a) motion at the close of ***all*** the evidence, as they were required to do. Further, certain of the Rule 50(b) arguments have been waived because they were not properly raised, or not raised at all, in the Rule 50(a) motion that Defendants made after LTI's case-in-chief. Insofar as Defendants' Rule 50(b) arguments have not been preserved, the most this Court may do (and only if it finds an error affecting substantial rights) is order a new trial.

Defendants' arguments also lack merit. Defendants' claim construction arguments, many of which are recycled from their *Markman* briefs, must fail because neither Claim 8 of the '910 Patent nor Claim 11 of the '779 Patent is subject to construction under 35 U.S.C. § 112 ¶ 6, and the Court's construction of those claims was sufficient for the jury to conclude whether or not they were infringed. Also, because there was ample evidence that Defendants' product contains a feedback loop that is equivalent to one composed in part of diode 316, the jury's verdict of equivalency infringement on Claims 18 and 25-26 of '779 Patent and Claims 1-13 of the '077 Patent must not be overturned.

Defendants' next argument, that there was insufficient evidence at trial under the function-way-result and/or interchangeability tests to support the jury's finding of equivalency infringement on certain claims, also should be rejected. First, Defendants' argument is vague and itself fails to meet its burden of particularizing with specificity how each and every claim

(much less each claim element -- as required by Federal Circuit law) was not proven adequately pursuant to the doctrine of equivalents. Of course, LTI did in fact present substantial particularized evidence and linking argument of infringement under the doctrine of equivalents to the extent required by the Federal Circuit. The trial transcript contains hundreds of pages of detailed explanations from LTI's technical expert, LTI's own patent inventor and in many cases Defendants' own witnesses as to how the accused device worked and read on LTI's patents. Therefore, Defendants are not entitled to judgment as a matter of law on any of the matters submitted to the jury, nor should a new trial be granted on the grounds raised by Defendants.

Finally, Defendants are not entitled to a new trial based on LTI's use of Exhibit 130 during closing argument because they did not object during the closing. Even if Defendants' argument regarding Exhibit 130 was not waived, the admission and use of Exhibit 130, which is substantive rebuttal evidence, was proper under the circumstances, and could not in any event constitute more than harmless error. Accordingly, Defendants Rule 59 motion should be denied in its entirety.

II. ARGUMENT

A. Standard for Renewed Motion for Judgment as a Matter of Law and for New Trial.

1. Rule 50(b) -- Renewed Motion for Judgment as a Matter of Law.

Rule 50(b) permits a party after the entry of judgment to renew a motion for judgment as a matter of law on an issue that was previously and properly made under Rule 50(a) at the close of all the evidence. *See* Fed. R. Civ. P. 50(b). The standard for deciding a post-trial Rule 50(b) motion is the same as the standard governing a Rule 50(a) motion. *See Hurd v. American Hoist & Derrick Co.*, 734 F.2d 495, 498 (10th Cir. 1984). A court may grant judgment as a matter of

law where (1) there is no sufficient evidentiary basis for a reasonable jury to find for a party on an issue,[1] or (2) the motion raises dispositive issues of law which if resolved in the movant's favor necessarily require that judgment as a matter of law be entered on an issue. *See* Fed. R. Civ. P. 50(a)(1); *Neely v. Martin K. Eby Constr. Co.*, 87 S. Ct. 1072, 1079 (1967); *K & T Enters., Inc. v. Zurich Ins. Co.*, 97 F.3d 171, 175 (4th Cir. 1996).

2. Rule 59 -- Motion for a New Trial.

Rule 59 provides in pertinent part that:

> A new trial may be granted to all or any of the parties and on all or part of the issues . . . for any of the reasons for which new trials have heretofore been granted in actions at law in the courts of the United States.

Fed. R. Civ. P. 59(a). Thus, a district court may exercise its discretion to grant a new trial where the verdict is against the clear weight of the evidence,[2] the trial was not fair to the moving party, or the trial was otherwise tainted by substantial errors in the admission or exclusion of evidence. *See Montgomery Ward & Co. v. Duncan*, 61 S. Ct. 189, 194 (1940). In any event, however, a district court's discretion to order a new trial is tempered by the harmless error standard of Rule 61. *See* Part II.F.3, *infra*.

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[1] An analysis under this first ground requires the Court to determine "whether the jury verdict is supported by substantial evidence." *Webco Indus., Inc. v. Thermatool Corp.*, 278 F.3d 1120, 1128 (10th Cir. 2002). Substantial evidence is "something less than the weight of the evidence, and is defined as such relevant evidence as a reasonable mind might accept as adequate to support a conclusion, even if different conclusions also might be supported by the evidence." *Id.* "The trial court must view the evidence most favorably to the party against whom the motion is made, and give that party the benefit of all reasonable inferences." *Hurd v. American Hoist & Derrick Co.*, 734 F.2d 495, 499 (10th Cir. 1984). The court may "not retry issues, second guess the jury's decision-making, or assess the credibility of witnesses [or] determine the weight to be given their testimony. It is the province of the jury, and not [the] court, to resolve conflicts in the evidence." *Webco Indus.*, 278 F.3d at 1128.

[2] A "motion for a new trial on the ground that the verdict of the jury is against the weight of the evidence is normally one of fact and not of law and is addressed to the discretion of the trial court." *Campbell v. Bartlett*, 975 F.2d 1569, 1577 (10th Cir. 1992). The moving party carries the heavy burden of demonstrating that the verdict was "clearly, decidedly, or overwhelmingly against the weight of the evidence." *Black v. Hieb's Enters., Inc.*, 805 F.2d 360, 363 (10th Cir. 1986).

B. Defendants' Rule 50 Motion Suffers from Several Fatal Procedural Deficiencies.

1. Defendants Are Barred from Seeking Any Rule 50(b) Relief Because They Failed to Renew Their Rule 50(a) Motion at the Close of All the Evidence.

This Court should deny the Rule 50(b) portion of Defendants' motion in its entirety because Defendants failed to renew their Rule 50(a) motion at the close of ***all*** the evidence, as they were required to do. "As a general rule, ***a defendant's motion for directed verdict made at the close of plaintiff's evidence is deemed waived if not renewed at the close of all the evidence; failure to renew that motion bars consideration of a later motion for judgment n.o.v.***" *Davoll v. Webb*, 194 F.3d 1116, 1136 (10th Cir. 1999) (emphasis added), *quoting Karns v. Emerson Elec. Co.*, 817 F.2d 1452, 1455 (10th Cir. 1987); *see also* Fed. R. Civ. P. 50 Advisory Comm. Notes (1963) ("A motion for judgment notwithstanding the verdict will not lie unless it was preceded by a motion for a directed verdict made at the close of all the evidence."); *Firestone Tire & Rubber Co. v. Pearson*, 769 F.2d 1471, 1478 (10th Cir. 1985) ("An appellate court may not consider the contention that the trial court erred in denying an appellant's motion for a judgment notwithstanding the verdict where the appellant failed to move for a directed verdict at the close of the evidence, as required by Rule 50 of the Federal Rules of Civil Procedure.").[3]

[3] One of the reasons for requiring a defendant to renew a Rule 50(a) motion at the close of all the evidence is to put the plaintiff on notice that the defendant still believes, after hearing the evidence presented after the first Rule 50(a) motion was made, that there is insufficient evidence to submit the case to the jury. In other words, if a motion for judgment as a matter of law is made at the close of the plaintiff's case and denied and not renewed at the close of all the evidence, the plaintiff may assume that the denial was the end of the matter, while if the defendant shows by renewing the motion that the denial was not the end of the matter, the plaintiff may ask and may receive permission from the judge to put in some additional evidence to show that there is a jury issue. *See Szmaj v. American Tel. & Tel. Co.*, 291 F.3d 955, 958 (7th Cir. 2002).

Here, Defendants moved for judgment as a matter of law on certain issues (but not others) after LTI's case-in-chief, *see* Tr. 950-55, but they then failed to renew their Rule 50(a) motion at the close of ***all*** the evidence, *see* Tr. 1102-05. As such, Defendants have failed to properly preserve any of the arguments presented in their Rule 50(a) motion and therefore can no longer pursue them under the rubric of a post-trial Rule 50(b) motion. *See Karns*, 817 F.2d at 1456 (affirming denial of Rule 50(b) motion where Rule 50(a) motion had not been renewed at the close of all the evidence); *Nestier Corp. v. Menasha Corp.-LEWISystems Div.*, 739 F.2d 1576, 1580 (Fed. Cir. 1984) (affirming denial of Rule 50(b) motion where party had failed to renew its Rule 50(a) motion on invalidity and willful infringement at the close of all the evidence); *Braintree Labs., Inc. v. Nephro-Tech, Inc.*, 81 F. Supp. 2d 1122, 1127-29 (D. Kan. 2000) (refusing to hear Rule 50(b) motion in patent case where defendant failed to renew the Rule 50(a) motion at the close of all the evidence), *aff'd without opinion by* 2001 WL 791706 (Fed. Cir. 2001); *Megadyne Med. Prods., Inc. v. Aspen Labs., Inc.*, 864 F. Supp. 1099, 1105-06 (D. Utah 1994) (same), *aff'd without opinion by* 1995 WL 156494 (Fed. Cir. 1995).

Although the Tenth Circuit, alongside other jurisdictions, has crafted a limited exception to the aforementioned rule, it is inapplicable here. The exception may only be invoked where ***each*** of the following circumstances exists:

> (1) the defendant moved for directed verdict [under Rule 50(a)] at the close of the plaintiff's case; (2) the trial court, in ruling on the motion, somehow indicated that renewal of the motion would not be necessary in order to preserve the issues raised; ***and*** (3) the evidence introduced after the motion was brief.

Karns, 817 F.2d at 1456 (emphasis added); *see also Halsell v. Kimberly-Clark Corp.*, 683 F.2d 285, 294 (8th Cir. 1982) (employing a similar test); *Bayamon Thom McAn, Inc. v. Miranda*, 409 F.2d 968, 970-72 (1st Cir. 1969) (same). Neither of the last two elements has been satisfied.

First, this Court never indicated to Defendants that they did not have to re-raise their Rule 50(a) motion at the close of all the evidence. Courts typically manifest such an intention by taking the motion under advisement or, if they have denied the motion, by otherwise expressly indicating that the court still "intended to reserve consideration of the issues raised." *Karns*, 817 F.2d at 1456; *see also Szmaj v. American Tel. & Tel. Co.*, 291 F.3d 955, 957-58 (7th Cir. 2002) (district court reserved ruling on the motion); *Beaumont v. Morgan*, 427 F.2d 667, 670 (1st Cir. 1970) (same); *Megadyne*, 864 F. Supp. at 1105-06 (same); *Armstrong v. Federal Nat'l Mortg. Assoc.*, 796 F.2d 366, 370 (10th Cir. 1986) ("[T]he trial judge indicated quite clearly that he intended to keep the issues raised by the motion open when he said that the 'motion may just well be a good motion, but I'm not prepared to grant it,' and that he wanted to study the briefs and read the cases and would therefore deny the motion 'without prejudice to reverse myself.'").

Here, however, ***the motion was flatly and unequivocally denied***, *see* Tr. 951, 955, and the Court "gave no indication in denying defendant's motion for directed verdict that it intended to reserve consideration of the issues raised." *Karns*, 817 F.2d at 1456 (finding no indication that a district court "intended to reserve consideration of the issues raised" when the district court "simply said: 'I find that minds of reasonable persons could differ as to the conclusions to be drawn; therefore, your motion will be overruled.'"); *see also Cholier, Inc. v. Torch Energy Advisors*, 1996 WL 196602, at *3 (10th Cir. 1996) (noting that a "court's original unequivocal denial of the [motion] does not indicate an intent to preserve the issue") (unpublished), attached hereto as Ex. X; *McCann v. Texas City Refining, Inc.*, 984 F.2d 667, 671-72 (5th Cir. 1993) (where district court had flatly rejected Rule 50(a) motion, instead of taking it under advisement,

failure to renew at the close of all the evidence would not be excused). Therefore, the second element of the *Karns* exception is not present here.

Also clear is the fact that the evidence introduced in this case after Defendants made their Rule 50(a) motion was not brief or inconsequential. *See Karns*, 817 F.2d at 1456. Defendants called their ***technical expert*** Charles Creusere to the stand. Dr. Creusere testified for approximately three and a half hours and on every issue related to the infringement of the patents and on each and every patent claim at issue in this case. His testimony spanned over 124 pages of the trial transcript, and Dr. Creusere discussed or served as the vehicle to introduce 15 exhibits.[4] Furthermore, Dr. Creusere's testimony can hardly be deemed inconsequential to LTI's case, in light of the fact that in many respects it bolstered LTI's case on infringement. *See* Tr. 992-93, 1004-05, 1009, 1014, 1062-69, 1082 (admitting the presence of several claim limitations); *see also Bogk v. Gassert*, 13 S. Ct. 738, 740 (1893) ("It not infrequently happens that the defendant himself, by his own evidence, supplies the missing link."). In light of Dr. Creusere's testimony, and having not renewed their motion at the conclusion of all the evidence, Defendants abandoned their insufficiency-of-the-evidence arguments. Had Defendants properly

[4] *Compare Bayamon Thom McAn, Inc. v. Miranda*, 409 F.2d 968, 970-72 (1st Cir. 1969) (failure to renew excused where the court stated "I am following the usual federal practice of reserving ruling on it; if the verdict is against you, you can still argue it anyway," and the testimony after the motion lasted only minutes and amounted to no more than two pages of trial transcript), *with Delano-Pyle v. Victoria County*, 302 F.3d 567, 572-73 (5th Cir. 2002) (declining to excuse failure to renew where, "[a]lthough [the defendant] only presented two witnesses, an entire day, rather than a few minutes, elapsed from the time the motion was made and the close of all evidence"); *Pulla v. Amoco Oil Co.*, 72 F.3d 648, 656 (8th Cir. 1995) (declining to excuse failure to renew where four witnesses testified for a full day and several exhibits were introduced); *Keisling v. Ser-Jobs For Progress, Inc.*, 19 F.3d 755, 759 (1st Cir. 1994) (declining to excuse failure to renew where "the evidence that defendants presented following the district court's ruling on their motion was undeniably substantial and relevant to the issues raised in the motion"); *Della Grotta v. State of Rhode Island*, 781 F.2d 343, 350 (1st Cir. 1986) (declining to excuse failure to renew where "defendants' evidence in the present case, although limited to a single witness, took place over the course of two days, and constituted nearly half of the trial transcript"); *Gillentine v. McKeand*, 426 F.2d 717, 722-23 (1st Cir. 1970) (declining to excuse procedural error where defendant's evidence was substantial, comprising six witnesses and four exhibits, and taking the better part of two trial days).

renewed their motion, and put LTI on notice that insufficiency was still an issue, LTI could have recalled Mr. McAlexander to introduce additional evidence (particularly with respect to the *Lear Siegler* argument advanced by Defendants).[5]

Given that neither circumstance of the *Karns* exception is present so as to excuse Defendants' failure to re-raise their Rule 50(a) motion at the close of all the evidence, none of the Rule 50(b) arguments are properly before the Court. Accordingly, this Court may not enter judgment as a matter of law for Defendants. The most the Court may do (and albeit only if it finds an error affecting substantial rights) is order a new trial. *See Satcher v. Honda Motor Co.*, 52 F.3d 1311, 1315 (5th Cir. 1995); *Yohannon v. Keene Corp.*, 924 F.2d 1255, 1261 (3d Cir. 1991); *Della Grotta*, 781 F.2d at 350-51.

2. In the Alternative, Defendants Are Barred from Raising Certain of Their Rule 50(b) Arguments Because the Arguments Were Not Properly Raised, or Not Raised at All, in the Rule 50(a) Motion Defendants Made After LTI's Case-in-Chief.

Even if the Court excuses Defendants' failure to re-raise their Rule 50(a) motion at the close of all the evidence (which it should not), the Court should nevertheless find that certain of the Rule 50(b) arguments have been waived because they were not properly raised, or not raised at all, in the Rule 50(a) motion that Defendants made after LTI's case-in-chief. Rule 50(a)

[5] Although Defendants did cite *Lear Siegler* during the final jury instruction conference, they did not raise it with respect to whether the doctrine of equivalents instructions should be read to the jury -- *i.e.*, they did not argue that there was insufficient evidence to submit the question of equivalency infringement to the jury (as they do now). Rather, Defendants raised *Lear Siegler* merely as an unprecedented request to add certain language from the case to the instructions. *See* Tr. 1127-29. Importantly, when the Court denied the request it informed Defendants that *Lear Siegler* "directly relates upon the sufficiency of the evidence to submit the question to the jury in the first place, it does not address instruction to the jury." *Id.* at 1129. Despite this clarification from the Court -- that insufficiency of the evidence is a different argument all together -- Defendants did not then seize the opportunity to argue that there was insufficient evidence to submit equivalency infringement to the jury. As such, their request during the jury conference cannot be deemed to be the functional equivalent of a motion for judgment as a matter of law at the close of all the evidence.

requires that the "motion shall specify the judgment sought and the law and the facts upon which the moving party is entitled to the judgment." Fed. R. Civ. P. 50(a)(2). A Rule 50(a) motion for judgment as a matter of law "preserves for review only those grounds specified at the time, and no others." *Vanderhurst v. Colorado Mountain College Dist.*, 208 F.3d 908, 915 (10th Cir. 2000); *see also Michael Found., Inc. v. Urantia Found.*, 2003 WL 986723, at *4 (10th Cir. 2003) ("We have consistently held that a movant's renewed motion under Rule 50(b) may not advance new legal arguments; *i.e.*, the renewed motion's scope is restricted to issues developed in the initial [Rule 50(a)] motion.") (unpublished), attached hereto as Ex. X; *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1579-80 (Fed. Cir. 1986) (holding that a Rule 50(a) motion regarding infringement will not support a Rule 50(b) motion regarding willful infringement). These requirements are important because "[i]f the rule were otherwise judgment as a matter of law might be entered under Rule 50(b) on a motion made after the close of the trial on a ground that could have been met with proof if it had been suggested in the motion." 9A CHARLES ALAN WRIGHT & ARTHUR R. MILLER, FEDERAL PRACTICE AND PROCEDURE § 2533, at 309 (1995).[6]

Defendants' Rule 50(a) motion, made after LTI's case-in-chief, raised whether there was sufficient evidence at trial under the function-way-result and interchangeability tests to submit the issue of equivalency infringement to the jury on the various claims in which it was an issue. *See* Tr. 951-54. The only other purported Rule 50(a) argument raised by Defendants comprised the following:

[6] Additionally, "[t]he requirement of specificity is not simply the rule-drafter's choice of phrasing. In view of a litigant's Seventh Amendment rights, it would be constitutionally impermissible for the district court to re-examine the jury's verdict and to enter JMOL on grounds not raised in the pre-verdict JMOL." *Duro-Last, Inc. v. Custom Seal, Inc.*, 321 F.3d 1098, 1107 (Fed. Cir. 2003).

> Motion number one, your Honor, harkening back to the original *Markman* hearing and your order on that, we would ask you to reconsider your order to instruct the jury to find a directed verdict in view of the fact that in view of the interpretation of the claims that we provided in that motion that none of the claims is infringed in accordance with our summary judgment motion.

Tr. 950-51. Defendants elaborated no further, however, and LTI was left to guess which arguments Defendants were alluding to from their 111 pages worth of *Markman*/Summary Judgment briefs.[7] Such an ambiguous, imprecise and uninformative form of Rule 50(a) motion is insufficient as a matter of law. *Cf. Wang Labs., Inc. v. Toshiba Corp.*, 993 F.2d 858, 869 (Fed. Cir. 1993) ("Although it is true that the standard for summary judgment is virtually the same as that for a directed verdict, viz., that 'there can be but one reasonable conclusion as to the verdict,' this does not mean that a motion for summary judgment is a substitute for a motion for directed verdict."); *Braintree Labs., Inc. v. Nephro-Tech, Inc.*, 81 F. Supp. 2d 1122, 1128-29 (D. Kan. 2000) (rejecting defendant's reliance on prior summary judgment motion as a proxy for a proper Rule 50(a) motion on the issue of patent validity), *aff'd without opinion by* 2001 WL 791706 (Fed. Cir. 2001). Because LTI failed to receive proper notice of the vast majority of Defendants' Rule 50(a) arguments, it did not have an opportunity to correct any purported deficiencies in its case.

Although LTI believes that none of Defendants' Rule 50(b) arguments are properly before the Court, in light of their failure to renew at the close of all the evidence, LTI respectfully requests in the alternative that the Court refuse to hear any Rule 50(b) arguments

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[7] *See* Defendants' Memorandum in Support of Their Proposed Claim Construction and Motion for Summary Judgment; Defendants' Reply Memorandum in Support of Their Proposed Claim Construction and in Opposition to Plaintiff's Proposed Claim Construction and Cross-Motion for Summary Judgment; Defendants' Request for Reconsideration of Order Denying Summary Judgment of Non-Infringement Under the Doctrine of Equivalents of Claims 18 & 25 of the '779 Patent and Claim 1 of the '077 Patent.

(other than the function-way-result/interchangeability argument) on the ground they were not properly raised, or not raised at all, in the Rule 50(a) motion Defendants did make after LTI's case-in-chief.

C. The Court Did Not Err in Its Construction of the Claim Terms "Precision Timing Section" in Claim 8 of the '910 Patent and "Assigning a Pulse Value" in Claim 11 of the '779 Patent.

In their Motion, Defendants assert that the Court's construction of certain claim language in Claim 8 of the '910 Patent and Claim 11 of the '779 Patent is so ill-defined and vague that the jury's verdict must be set aside. The core of Defendants' argument is that both Claims 8 and 11 should be limited to the preferred embodiments in the patent specifications. This argument is contrary to the well-established and basic principle of claim construction that "one may not read a limitation into a claim from the written description," *RF Delaware, Inc. v. Pacific Keystone Tech., Inc.*, 326 F.3d 1255, 1264 (Fed. Cir. 2003); *accord Laser Technology, Inc. v. Nikon, Inc.*, 215 F. Supp. 2d 1135, 1145 (D. Colo. 2002), and Defendants are merely attempting to back-door claim limitations when it is improper to do so. This Court has already rejected many of Defendants' Rule 50(b) claim construction arguments in denying their *Markman*/Summary Judgment motion, and nothing has changed since then. Indeed, to the extent there were any errors at all in the Court's claim constructions, they favored Defendants.[8]

[8] LTI maintains that diode 316 should not have been identified in the Court's construction in the first instance. In addition to the arguments previously raised by LTI at the *Markman* stage, as well as the testimony at trial that diode 316 performs a detector function rather than a function related to automatic noise thresholding provided by the feedback loop, a recent Federal Circuit decision issued ***after*** this Court's *Markman* ruling has made it clear that the Court's holding that Claim 18 of the '779 Patent was subject to § 112 ¶ 6 cannot stand. Specifically, on April 2, 2003, the Federal Circuit reversed *Apex, Inc. v. Raritan Computer*, which Defendants relied on for the proposition that the word "circuit" normally lacks a definite meaning. *See Laser Technology*, 215 F. Supp. 2d at 1155. The Federal Circuit explained that: "While we do not find it necessary to hold that the term 'circuit' by itself always connotes sufficient structure, the ***term 'circuit' when combined with an appropriate identifier . . . certainly identifies some structural meaning to one of ordinary skill in the art***." *Apex, Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1373 (Fed. Cir. 2003) (emphasis added). The *Apex* court elaborated that: "[I]t is clear that the term

1. The Court's Claim Construction of "Precision Timing Section" Is Not Erroneous Because The Terms of the Claim Are Not Written in Means-Plus-Function Language, They Recite Sufficient Structure, and Are Not Ill-Defined or Vague.

Defendants attack the Court's construction of the claim language "precision timing section" by reasserting their failed *Markman* argument that this claim language must be construed as a means-plus-function element under 35 U.S.C. § 112 ¶ 6. The Court has already rejected this argument in its *Markman* order, in which the Court held:

> . . . . [T]he Claim 8 language is not written in means-plus-function format, typified by the use of the word "means." Therefore the rebuttable presumption applies that the element should not be construed according to means-plus-function format. Second, a claim term can avoid application of 112 ¶ 6 even if it does not espouse a precise physical structure.
>
> . . . . Defendants fail to rebut the presumption as to this claim language.
>
> . . . . While the claim language here might not describe a "known specific structure," it need not do so. I conclude that the claim language recites sufficiently definite structure to resist application of 112 ¶ 6.

Laser Technology, 215 F. Supp. 2d at 1158. As set forth in LTI's *Markman* briefing, "the claim recites a specific structure, *i.e.*, a *precision timing section*, for performing the function required by the claim," and "[a] *precision timing section* has a well-known meaning to one of ordinary skill in the laser range finder art -- namely, a timer that is sufficiently precise to determine a time-of-flight of signals that travel at the speed of light." Pl.'s Mem. in Support of Its Combined

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'circuit,' by itself connotes some structure. In the absence of any more ***compelling*** evidence of the understanding of one of ordinary skill in the art, ***the presumption that § 112, ¶ 6 does not apply is determinative***." *See id.* (emphasis added). Just like the disputed claim language in *Apex*, Claim 18 also contains an appropriate identifier -- "for automatically adjusting a noise threshold." Moreover, there was no compelling evidence of the understanding of one skilled in the art to support a finding that the disputed language in Claim 18 "does not provide sufficient structural meaning to withstand application of § 112, ¶ 6." *Laser Technology*, 215 F. Supp. 2d at 1156. Finally, Mr. McAlexander's testimony about his interpretation of the prosecution history, as one of skill in the art, suggests again that diode 316 should not have been identified in the Court's construction of any of the claims relating to automatic noise thresholding. *See* Tr. 885-88.

(1) Cross Mot. for Proposed Claim Construction and Summ. J. and (2) Resp. to Defs.' Proposed Claim Construction and Mot. for Summ. J. ("Pl.'s *Markman* Br.") at 57. At the *Markman* hearing, LTI's counsel explained that the speed of light is readily available information, as are high speed clocks that run at various rates. Additionally, the resolution of the device is dependent on the precision of the timing section. At trial, Dr. Chien acknowledged all of this, as did Dr. Creusere. *See* Tr. 212 (Chien); Tr. 991, 1087-89 (Creusere). Thus, a person skilled in the art can assemble a precision timing section to the resolution desired in the patented invention. *See Markman* Hearing Tr. at 23-24; *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576 (Fed. Cir. 1986). Indeed, Defendants' own marketing literature referred to the accused device as containing a "precision charge circuit" or "high speed clock." Pl. Exs. 7, 76 & 81. As such, the Court has correctly determined that the claim language "precision timing section" is not to be construed under § 112 ¶ 6 and therefore is not limited to the structure recited in the patent specification.

Notwithstanding the fact that the Claim 8 language in dispute is not governed by § 112 ¶ 6, Defendants continue to argue that it should be construed in the same manner as a mean-plus-function claim because to do otherwise would result in claim language that is ill-defined and lacks sufficient clarity. Defendants' argument must fail because it contravenes the rule of claim construction that "[t]here is a '***heavy presumption*** that a claim term carries its ordinary and customary meaning." *Laser Technology*, 215 F. Supp. 2d at 1143 (emphasis added), *quoting CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1365 (Fed. Cir. 2002); *accord Apex, Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1371 (Fed. Cir. 2003).

Defendants paint a misleading and incomplete picture of the Court's construction of the disputed language in Claim 8. While Defendants declare that the Court "merely repeated the claim language" in construing "precision timing section," that is not the case. The Court's construction states: "A precision timer coupled to the transmitter and receiver . . . ***that determines a flight time of laser pulses reflected from a target***. A separate timer or clock is not required."[9] *Laser Technology*, 215 F. Supp. 2d at 1159. In its opinion, the Court did include language that modifies "precision timer" and explains the claim language in sufficient detail for the jury to determine whether the claim was infringed. Setting aside the absurdity of Defendants' argument that the jury could not conclude that a timing section that operates in increments of 24 billionths of a second (that then, using phase-shift technology, is reduced to 12 billionths of a second) to achieve resolution of plus or minus one meter is a "precision" timing section, the fact remains that the Court has given a sufficient explanation of the word "precision." As set forth in LTI's *Markman* briefs, the term "precision timing section" has an ordinary meaning to one skilled in the art as a timer that is precise enough to determine the time of flight of a laser pulse -- *i.e.*, an object moving at the speed of light. *See* Pl.'s *Markman* Br. at 57. In accordance with the above-stated rule of construction for non-§ 112 ¶ 6 claims, the Court construed the term "precision timing section" consistently with its ordinary and customary meaning. Accordingly, the Court's claim construction adequately informed the jury that if the accused device contains a timing section that was able to determine the time of flight of a laser pulse to the desired resolution, the jury could find it contained a "precision timing section." Obviously, the jury found that degree of precision was present in Defendants' product.

[9] At the time of the *Markman* hearing, Defendants argued that two clocks were required.

Defendants also argue that the "precision timing section" should be limited to the preferred embodiment in the patent specifications and therefore had to include a clock, in the form of a charged capacitor, that starts when the laser pulse fires and stops when the a pulse signal is detected. Again, Defendants' argument is inconsistent with the claim construction principle that "[i]f a claim recites a general structure without limiting that structure to a specific subset of structures, [the Court] will generally construe the term to cover all known types of that structure that the patent disclosure supports." *Laser Technology*, 215 F. Supp. 2d at 1143; *accord CCS Fitness*, 288 F.3d at 1366; *see also, e.g.*, *RF Delaware, Inc. v. Pacific Keystone Tech., Inc.*, 326 F.3d 1255, 1263 (Fed. Cir. 2003) ("[C]laims are necessarily and not usually limited in scope to the preferred embodiment."). While Defendants attempt to draw an artificial distinction between a "stopwatch" and an "oscillator," they have already vehemently argued this point at trial to no avail. That is because the evidence presented at trial reveals that Defendants have admitted over and over again that the accused device does, in fact, measure the flight time of laser pulses with a precision timing section. For example:

- Defendants' own product literature explains that "[s]ophisticated circuitry and a ***precision charge circuit*** are used to instantaneously calculate distances, ***by measuring the time it [t]akes for each pulse to travel from the rangefinder, to the target, and back***." Pl. Ex. 7 (emphasis added); *accord* Pl. Exs. 76 & 81 (making reference to a "***high speed*** clock" in the accused device) (emphasis added).

- Although Dr. Chien denied that the accused product had a precision timing section, when asked the question in different ways, he repeatedly testified that the accused product calculated distance based on time-of-flight of the laser pulse. *See* Tr. 211-12, 214-15, 275-77, 279; *see also* Part II.E.3, *infra*. These multiple admissions were summarized in LTI's counsel's closing argument. *See* Tr. at 1200-02, 1267-68.

- Dr. Creusere also admitted in his first expert report that the accused device correlates time-of-flight data. *See* Tr. 1082.

The jury was free to accept the ample evidence (including that from Mr. McAlexander and Mr.

Dunne as well, *see* Part II.E.3, *infra*) that the accused device measures the flight time of laser pulses to and from a target with a precision timer and to reject Dr. Chien and Dr. Creusere's inconsistent testimony to the contrary.

In sum, the Court did not err in its construction of the claim term "precision timing section" and the Court provided sufficient guidance to the jury to permit the jurors to determine whether or not Claim 8 of the '910 Patent was infringed. Accordingly, the jury's verdict should not be set aside, nor should Defendants obtain a new trial.

2. The Court's Claim Construction of "Assigning a Pulse Value" Is Not Erroneous or Vague and the Jury's Finding of Infringement of Claims 11-14 and 16 of the '779 Patent Is Supported by Substantial Evidence.

Defendants' first criticism of the Court's construction of the claim term "assigning a pulse value" is that it should have been construed under § 112 ¶ 6. However, ***Defendants never specifically argued that Claim 11 of the '779 Patent should be construed as a step-plus-function claim during the Markman proceedings in this case***, or at any other time prior to their Rule 50(b) post-trial motion. Thus, even if Defendants' incorporation of their *Markman* arguments were sufficient to constitute a proper Rule 50(a) motion (which it is not), Defendants never previously raised this issue, and therefore it is waived. *See Michael Found., Inc. v. Urantia Found.*, 2003 WL 986723, at *4 (10th Cir. 2003) (unpublished), attached hereto as Ex. X; *see also American Standard, Inc. v. York International Corp.*, 244 F. Supp. 2d 990, 993 (W.D. Wisc. 2002) (failure to raise claim construction argument at trial bars that argument for purposes of Rule 50(b)). Moreover, it is understandable why Defendants did not raise their § 112 ¶ 6 argument at trial -- Claim 11 is not written in step-plus-function format, and thus is not presumed to be subject to § 112 ¶ 6. *See Masco Corp. v. United States*, 303 F.3d 1316, 1327 (Fed. Cir.

2002) (use of "steps for" not "steps of" language is required to trigger presumption of step-plus-function format). Given that Claim 11 is not drafted with "steps for" language, Defendants' conclusory and unsupported assertion that Claim 11 is a "classic example" of a § 112 ¶ 6 claim is plainly incorrect. Accordingly, this Court must reject Defendants' new § 112 ¶ 6 argument.

Recognizing that their § 112 ¶ 6 argument is procedurally and substantively infirm, Defendants, as with Claim 8 of the '910 Patent, argue in the alternative that the Court's construction of the language "assigning pulse value" lacks sufficient clarity to inform the jury how to decide if the claim is infringed. The focus of Defendants' argument is on the word "assigning," which was not a focus of their *Markman* briefing. The word "assigning" is self-explanatory, as it has a well-understood meaning in the English language as used in Claim 11, which is "[t]o allot, appoint, authoritatively determine. . . . [or] [t]o fix, settle, determine, or authoritatively appoint (a time or temporal limit)." OXFORD ENGLISH DICTIONARY 712 (J.A. Simpson & E.S.C. Weiner eds., 2d ed., Oxford: Clarendon Press, 1989). When read in connection with the Court's construction of Claim 11, assigning "a value identifying time-of-flight data . . . that provides information sufficient to permit correlation of the received signal with other received signals to determine which of the received signals represents the actual return or target-reflected signals . . ." is sufficiently clear. *Laser Technology*, 215 F. Supp. 2d at 1152. Accordingly, the Court did not need to provide a separate explanation of the word "assigning" in order for the jury to have sufficient guidance as to whether Claim 11 of the '779 Patent was infringed.

Additionally, Defendants' other specific objections to the Court's construction of the claim term "assigning a pulse value" have already been flatly rejected by the Court in its

Markman ruling. Although Defendants contend that the accused device must compare pulse values as they are detected, the Court has already discarded this argument by construing Claim 11, in part, as follows: "The comparison is not necessarily an immediate one." *Laser Technology*, 215 F. Supp. 2d. at 1154. Likewise, Defendants' argument that the patent claims require a "stacking" of pulse values, was raised and rejected in connection with Claim 8 of the '910 Patent, which the Court construed, in part, as follows: "Neither a specific microprocessor nor anything that puts received laser pulses in a 'stack' is required." *Id.* at 1160. Defendants have failed to indicate any new developments since the Court's *Markman* ruling that would suggest it was erroneous. Accordingly, nothing in Defendants' failed and recycled arguments reveals any error in the Court's claim construction of the term "assigning a pulse value."

Finally, as set forth above, the jury heard abundant evidence that the accused device determines distance by assigning and comparing time-of-flight data associated with received signal pulses. *See* Part II.C.1, *supra*; Part II.E.3, *infra*. Therefore, not only is Defendants' claim construction argument devoid of merit, there was sufficient evidence in support of the jury's verdict of infringement of Claims 11-14 and 16 of the '779 Patent. Thus, Defendants' Rule 50/59 motion cannot be granted on the basis of these arguments.

D. The Jury Correctly Found That Defendants Infringed Claims 18 and 25-26 of the '779 Patent and Claims 1-13 of the '077 Patent Under the Doctrine of Equivalents.

Ignoring recent Federal Circuit law and testimony at trial indicating that diode 316 should ***not*** have been included in the Court's claim construction, Defendants argue that the Court's use of the words "consisting of" in its construction of Claims 18 and 25 of the '779 Patent and Claim

1 of the '077 Patent somehow precludes any equivalents that do not contain diode 316.[10] In particular, Defendants call attention to the fact that the term "consisting of," when used in claim language, is a term of art signifying that the element it introduces must be present in the infringing device. Defendants' argument is fatally flawed because it misstates the law, and also because it misapplies Defendants' own erroneous interpretation of the law to this Court's claim construction. Defendants' argument should be viewed as no more than a last-ditch effort to invoke prosecution history estoppel after this Court has, correctly, refused to do so on two separate occasions.[11]

1. The Court's Use of the Term "Consisting of" in Its Claim Construction Does Not Foreclose Infringement Under the Doctrine of Equivalents.

Defendants suggest that the doctrine of equivalents cannot apply to any claim element that is introduced by the phrase "consisting of." However, Defendants' argument is based on the erroneous position that a claim element "must" be present when it is introduced by the phrase "consisting of." To the contrary, the Federal Circuit has held that a "drafter's choice of the phrase 'consisting of' does not foreclose infringement under the doctrine of equivalents." *Vehicular Technologies v. Titan Wheel Int'l*, 212 F.3d 1377, 1383 (Fed. Cir. 2000).[12]

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[10] The weakness of Defendants' argument is highlighted by the fact that the Court did not even use the phrase "consisting of" in construing Claim 25 of the '779 patent. *See Laser Technology*, 215 F. Supp. 2d at 1158.

[11] On August 29, 2002, Defendants moved for reconsideration of the Court's *Markman*/summary judgment decision and specifically argued at length that prosecution history estoppel precludes LTI from obtaining coverage under the doctrine of equivalents in the absence of diode 316. The Court denied the motion for reconsideration. Subsequently, Defendants' trial brief sought jury instructions on prosecution history estoppel to preclude a finding of doctrine of equivalents infringement if the accused device did not contain diode 316. Again, the Court correctly denied Defendants' request for such an instruction. *See* Tr. 524-31.

[12] While transition phrases like "consisting of" have been thought of as terms of art in the context of the literal words chosen by the ***claim drafter*** for the claim itself, the notion that these phrases are also terms of art when used by a ***court*** in interpreting the literal words of the claim is dubious at best. Here, only the Court used the term "consisting of" when interpreting the claim, and the phrase was never chosen by the drafter to be used in the claims

Accordingly, Defendants' argument is foreclosed by controlling precedent and, therefore, must be rejected.[13]

2. Notwithstanding the Error of Defendants' Legal Analysis, the Phrase "Consisting of" Introduces the Feedback Loop as a Whole, Not Diode 316.

Even assuming, *arguendo*, that Defendants' legal analysis was correct (which it is not), their argument must still fail because they misinterpret the Court's claim construction. When the Court used the words "consisting of," ***it was to introduce the feedback loop as a whole, not diode 316***. For example, the Court's interpretation of the language in Claim 18 "a circuit for automatically adjusting a noise threshold of said laser light receiver" is as follows:

> A circuit ***consisting of*** a feedback loop composed in part of diode 316 that adjusts a noise threshold of a laser light receiver to a level at which a laser light receiver produces an output from noise light pulses having a constant pulse firing rate.

Laser Technology, 215 F. Supp. 2d at 1157 (emphasis added). As seen above, the reference to diode 316, which is not separated by any punctuation or conjunction, is merely a description of a part of the whole feedback loop to which the Court was referring -- the feedback loop including diode 316 -- rather than to diode 316 as a separate and freestanding claim element. *See* 5A DONALD S. CHISUM, CHISUM ON PATENTS § 18.04[1][b][i], at 18-612 (illustrating the difference between a claim drafted with separate elements separated by punctuation, rather than a single, combined element with greater description). This conclusion is bolstered by the Court's discussion, in its *Markman* opinion, of the feedback loop including diode 316 (and not diode 316

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themselves. Further, the Court was aware of its claim construction when it allowed testimony regarding the feedback loop.

[13] Defendants' assertion that, by pursuing infringement under the doctrine of equivalents, LTI was somehow trying to "negate," "re-construe" or "disregard" the Court's construction is disingenuous. Indeed, the Court rejected this suggestion during the trial. *See* Tr. 896-98.

by itself) as being the "essence" of the automatic noise threshold circuit. *See Laser Technology*, 215 F. Supp. 2d at 1156, 1158; *see also* Tr. 140-41, 151, 883-88 (testimony of patent inventor and LTI's technical expert that the feedback loop, not diode 316, is the "essence" of the automatic noise threshold circuit). In other words, diode 316 is consistently discussed in reference to the feedback loop, not as a separate claim element.

Therefore, to the extent that the phrase "consisting of" imposes any limitations on the doctrine of equivalents in this case, it only pertains to the feedback loop as a whole -- *i.e.*, that the accused device must have a feedback loop equivalent to that feedback loop including diode 316, not that diode 316 must be present in that equivalent feedback loop (either literally or equivalently).[14] As discussed below, because LTI presented evidence reflecting that the accused device has an equivalent of the feedback loop as a whole, the jury's finding of doctrine of equivalents infringement must not be disturbed.

3. Defendants Mischaracterize the Evidence of Equivalence, Which Reflects That the Accused Device Does Contain an Equivalent Feedback Loop.

Defendants contend that the evidence presented by LTI violates the all elements/limitations rule by effectively eliminating the feedback loop entirely.[15] Defendants' argument fails, however, because their characterization of the evidence is incorrect.

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[14] This also holds true for the Court's interpretation of Claims 1-13 of the '077 Patent. *See Laser Technology*, 215 F. Supp. 2d at 1161. However, as noted above, the interpretation of Claim 25 of the '779 Patent omits the term "consisting of" entirely. *See id*. at 1158. Accordingly, it is hard to see how Defendants' argument has any application to Claims 25 and 26, and since Claims 25 and 26 are similar to Claim 18 of the '779 Patent and Claims 1-13 of the '077 Patent, the Court would not have omitted "consisting of" in Claims 25 and 26 if diode 316 was required.

[15] As discussed above, because diode 316 is not a separate claim element, the all elements/limitations rule is not implicated by its absence in the accused device.

The testimony of both the patent inventor, Mr. Dunne, and LTI's technical expert, Mr. McAlexander, is that the "short-circuit" referred to in Defendants' Motion does not eliminate the feedback loop element, but instead creates an equivalent feedback loop. That is, the evidence reflects that there is a functioning feedback loop in the accused device (indeed, that loop is required to create a constant noise pulse firing rate and perform the automatic noise thresholding function), it is just that the feedback loop in the accused device does not contain certain components identified in the preferred embodiment relating to the detector function (having nothing to do with the automatic noise thresholding function), such as diode 316. *See* Tr. 825-26, 828-29, 864-65, 877-78, 880 (McAlexander). As explained in detail by Messrs. Dunne and McAlexander, diode 316 is not required to have a functioning feedback loop and, although the feedback current passes through diode 316, that diode performs no function related to feedback and automatic noise thresholding.[16] *See* Tr. 146-48, 152, 193-94 (Dunne); 828-29, 881-83 (McAlexander). Moreover, both Messrs. Dunne and McAlexander testified that the feedback loop present in the accused device was equivalent to one that is composed in part of diode 316. *See* Tr. 152, 195-96 (Dunne); 822-25, 894-95 (McAlexander).

[16] While Defendants suggest that figure 8 was improperly eliminated, it was not. Figure 8 is a diagrammatic portion of the feedback loop contained in the preferred embodiment. *See* Tr. 140-41, 195 (Dunne); 825-26 (McAlexander). The feedback loop begins on figure 3, passes through figure 8, and then is completed back in figure 3. *See* Tr. 193-94 (Dunne); 826, 878-79 (McAlexander). The short circuit, present in the accused device, is the equivalent of the feedback loop pictured in figures 3 and 8, as described in Mr. Dunne's and Mr. McAlexander's testimony. *See* Tr. 146-48, 152, 195-96 (Dunne); 754, 824-25, 880-83 (McAlexander). Messrs. Dunne and McAlexander testified that the electrical components contained in figure 8 are not essential to the functioning of the feedback loop as a whole -- indeed, their purpose is unrelated to the feedback loop and automatic noise threshold function. *See* Tr. 140, 195 (Dunne); 828, 880-83, 888, 891 (McAlexander). Instead, the components in figure 8 merely function for the purpose of selecting different user modes, and can be replaced with a wire and be the equivalent of the patent claims at issue. *See* Tr. 194 (Dunne); 826-28, 882, 891 (McAlexander); *see also* 146-48, 152, 195-96 (Dunne); 754, 824-25, 880-83 (McAlexander). Therefore the evidence presented at trial reflects that any difference between the accused device and the feedback loop contained in figures 3 and 8 is insubstantial.

In sum, LTI presented evidence that the accused device has a feedback loop that is equivalent to a feedback loop composed in part of diode 316. Therefore, the feedback loop element was not effectively eliminated, as suggested by Defendants, and the jury's determination that Claims 18 and 25-26 of the '779 Patent and Claims 1-13 of the '077 Patent were infringed under the doctrine of equivalents does not offend the all elements/limitations rule and is supported by substantial evidence. Defendants' Rule 50/59 argument to the contrary must be rejected.

E. LTI Presented Substantial Particularized Evidence and Linking Argument of Infringement Under the Doctrine of Equivalents on Each of the Several Claims in Which It Was an Issue.

Defendants next posit that there was insufficient evidence at trial under the function-way-result and/or interchangeability tests to support the jury's finding of equivalency infringement on Claims 18 and 25-26 of the '779 Patent, Claim 8 of the '910 Patent, and Claims 1-13 of the '077 Patent. This argument should be rejected for two reasons. First, as has already been recounted elsewhere, the argument has been waived to the extent brought under Rule 50(b). *See* Part II.B.1, *supra*. The most Defendants can hope to receive is a new trial under Rule 59 on the issue of equivalency infringement. Second, Defendants have not met their burden of demonstrating for each specific claim (much less the elements of the claims, as required by Federal Circuit law) that LTI did not produce sufficient evidence of equivalency. To the contrary, LTI did in fact present substantial particularized evidence and linking argument of equivalency infringement as required by *Lear Siegler, Inc. v. Sealy Mattress Co. of Mich.*, 873 F.2d 1422 (Fed. Cir. 1989) (function-way-result test) and *Texas Instr. Inc. v. Cypress Semiconductor Corp.*, 90 F.3d 1558 (Fed. Cir. 1996) (interchangeability test).

1. The Federal Circuit's Manner of Proof Requirement.

The Federal Circuit has held that:

> [A] patentee must . . . provide particularized testimony and linking argument as to the "insubstantiality of the differences" between the claimed invention and the accused device or process, or with respect to the function, way, result test when such evidence is presented to support a finding of infringement under the doctrine of equivalents. Such evidence must be presented on a limitation-by-limitation basis. Generalized testimony as to the overall similarity between the claims and the accused infringer's product or process will not suffice.

Texas Instr., 90 F.3d at 1567; *see also Lear Siegler*, 873 F.2d at 1425-27. Because the Court instructed the jury that equivalency infringement could be found by either the function-way-result test or the interchangeability test, *see* Tr. 1165-66, LTI was not required to use, although in many cases it did use, the magic words of "function-way-result." *See Honeywell Int'l, Inc. v. Hamilton Sundstrand Corp.*, 166 F. Supp. 2d 1008, 1023 (D. Del. 2001) ("[I]nfringement under the doctrine of equivalents may be established either through the triple identity test or through the insubstantial differences test; and, therefore, there is no 'particular linguistic formula' required for an equivalents case. Thus, the court must deny [defendant's] motion for JMOL, if [plaintiff] presented particularized testimony in support of either a triple identity or insubstantial differences analysis.").[17] Further, and importantly, the Court read the instruction on doctrine of equivalents not only at the end of trial, but also ***during*** the testimony of LTI's expert. *See* Tr. 816-18.

[17] Insofar as the *Lear Siegler* requirement is merely a technical requirement (*i.e.*, it elevates form over substance by relating to ***how*** one needs to prove equivalency rather than ***what*** one needs to prove to show equivalency), it highlights Defendants' failure to properly renew their Rule 50(a) motion at the close of all the evidence so as to put LTI on notice that Defendants still believed the requirement of *Lear Siegler* had not been met and that equivalency should not be submitted to the jury.

Importantly, the Federal Circuit has instructed that a party seeking to overturn a finding of equivalency infringement on the basis of *Lear Siegler* bears a heavy burden:

> [W]here there is no specific finding by the jury of equivalence as to a particular element, and the defendant has not successfully argued that a particular limitation could not be met literally, the defendant has assumed the burden of proving not only that there is insufficient evidence under *Lear Siegler* for a jury to find that the limitation could not be met equivalently, it must also establish that there is no substantial evidence in the record that would permit the jury to find that *any* limitation has been met by equivalents.

Comark Comms., Inc. v. Harris Corp., 156 F.3d 1182, 1189 (Fed. Cir. 1998). In other words, where there were no special interrogatories used to ascertain which ***elements*** were met literally and which were met equivalently, the Court must "uphold the jury verdict if there is sufficient evidence of equivalents and linking testimony such that a reasonable jury could have found that at least one element [of the claim] was met by equivalents." *Id.* at 1188. This follows because the jury "could have found the remainder of the claim elements were met literally." *Id.* It bears repeating that, in order to prevail on their *Lear Siegler* argument, ***Defendants bear the burden*** of proving that there was insufficient evidence of equivalency under each claim limitation. *See id.* at 1189. Defendants' vague and conclusory motion, however, leaves it to the Court and LTI to sift through the record to justify the jury's verdict. Although LTI (nor the Court) has any obligation to do so, LTI addresses below Claims 18 and 25-26 of the '779 Patent, Claim 8 of the '910 Patent, and Claims 1-13 of the '077 Patent, which Defendants referenced only in passing.[18]

As the following sections demonstrate, Defendants (who never once cite to the record in support of their argument) have failed utterly to meet their burden under *Comark*. There was

[18] Defendants' Motion only specifies Claims 18 and 25-26 of the '779 Patent, Claim 8 of the '910 Patent, and Claims 1-13 of the '077 Patent as purportedly deficient, and only those claims are discussed herein. LTI reserves the right to address other claims if they are later identified and argued by Defendants.

substantial particularized evidence and linking argument of equivalency infringement on at least one element of every claim at issue under the doctrine of equivalents. On those elements, the jury heard substantial particularized evidence as to the claimed device and the accused device, and what the functions, ways and results were and ***why*** those functions, ways and results were substantially the same. Indeed, unlike the patent holders in the cases cited by Defendants,[19] LTI went to great lengths (spanning hundreds of pages of trial transcript) to explain through its own expert and other witnesses how the accused device worked and read on its own patents. Therefore, this Court should uphold the jury's finding of equivalency infringement on Claims 18 and 25-26 of the '779 Patent, Claim 8 of the '910 Patent, and Claims 1-13 of the '077 Patent.

2. Proof of Equivalency Infringement of the '779 Patent.

a. Independent Claim 18 of the '779 Patent.

Claim 18 of the '779 Patent contains two elements.[20] Here, Defendants did not dispute the existence of the first element, *see* Tr. 237, 273-74 (Chien); 992-93, 1005 (Creusere), and it is therefore unclear how they can meet their burden of demonstrating that the jury could not find equivalence on at least one element of this Claim. Moreover, LTI's evidence of equivalency

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[19] *See GTE Products Corp. v. Kennametal, Inc.*, 772 F. Supp. 907, 916-17 (W.D. Va. 1991) (distinguishing *Lear Siegler* because "the evidence presented on infringement by equivalents was sparse in the extreme. The only possible evidence on infringement by equivalents came in the cross-examination of one of the defendant's witnesses. This evidence was vague and did not discuss infringement in terms of the claim elements."); *Malta v. Schulmerich Carillons, Inc.*, 952 F.2d 1320, 1327 (Fed. Cir. 1991) ("[O]ffhand and conclusory statements . . . are not sufficiently particularized evidence.").

[20] Claim 18 is for an automatic noise threshold circuit for use in a laser range finder, comprising: (1) a laser light receiver for generating an electrical signal in response to a received light signal, said received light signal containing both signal and noise light pulses; and (2) a circuit for automatically adjusting a noise threshold of said laser light receiver to a level at which said laser light receiver produces an output from said noise light pulses having a constant pulse firing rate. The Court construed element (2) to mean "a circuit consisting of a feedback loop composed in part of diode 316 that adjusts a noise threshold of a laser light receiver to a level at which a laser light receiver produces an output from noise light pulses having a constant pulse firing rate." *Laser Technology*, 215 F. Supp. 2d at 1157.

infringement on the second element of Claim 18 can hardly be called "generalized," as Defendants have suggested. The jury heard particularized testimony as to the insubstantiality of the differences between this element of the patent and the accused device from several persons, including Mr. Dunne, Mr. McAlexander, and Dr. Chien, as is demonstrated by the following testimony and evidence, all of which related to infringement under the doctrine of equivalents:

- Mr. Dunne testified at length that the accused device contains a feedback loop that is interchangeable with a feedback loop which is composed in part of diode 316. *See* Tr. 146 ("[Y]ou could simply connect point C to point D and the automatic noise feedback loop would work fine."); 147-48 ("Well, you have to put a connection in place of 316. If you took 316 out and didn't make the connection . . . then the circuit would be open looped, it would not be a feedback loop, and it would not operate, but you could simply replace 316 with a short circuit, just draw a line through it, and it would operate."); 152 ("As I said before, if diode 316 was removed and just replaced with a connection, the circuit would still operate and then that -- the rest of the elements would be contained in the automatic noise feedback loop. . . . There are other ways of implementing the feedback loop, but you could replace 316 with a straight line, make an adjustment to the resistor value and ***achieve exactly the same result***."); 195 ("Q: So, Mr. Dunne, does the diode there, 316, or for that matter any of those other elements from 314 on the left-hand side of figure 8 all the way down to 330, do they -- do they perform the automatic noise threshold function? A: No, they don't."); 195-96 ("Q: . . . [W]hether or not this figure 8 is there or not, as long as point C is connected to point D in figure 8, does it ***function the same way*** in terms of the automatic threshold noise? A: Yes, it does. Q: Does it achieve the ***same*** automatic noise threshold ***result***? A: Yes, it does.") (emphases added). He also testified that after examining the accused device he had determined that "under varying conditions the output receiver is essentially with a constant pulse firing rate." Tr. 81; *see also* Tr. 91-92, 189-90.

- Mr. McAlexander then took great care to explain why this portion of the claim was infringed under the doctrine of equivalents and that the accused device performed the automatic noise thresholding function in the same way (using a feedback loop) to achieve the same constant pulse firing rate result. When asked "Why are you of the opinion that, [despite the absence of diode 316], their circuit violates or infringes Laser Technology claim 18 under the Doctrine of Equivalents?," *see* Tr. 823, Mr. McAlexander responded as follows:

  > When I look at the requirements for a structure that would practice this function that's described, it's my opinion that the presence or absence of a

diode in the configuration that Asia Optical has implemented does not detract from or doesn't change the fact that the function is performed.

I see the -- in essence in the Asia Optical device the diode -- the circuitry that would correspond to the diode 316 is replaced by a wire. And the evaluation that I have run on the Asia Optical device, looking specifically at the MAX913 comparator, looking at its output, evaluating the feedback, ***I have determined that the placement of the wire versus the diode is an insubstantial change; and I have determined that the output has a constant pulse firing rate.*** I had mentioned the other day that my test evaluation had shown approximately 42 pulses in a four microsecond period, plus or minus 2.8 as the standard deviation.

So ***the result*** is achieved and, therefore, that meets the test of being substantially the same result. The ***way*** it is achieved is in accordance with the Court's construction using a feedback loop. So that is identically the same. And then the ***function*** of producing this output that has this particular type of result is also substantially the same.

So by applying the test, as I understand it, that first, determining that it is an ***insubstantial change***; secondly, I go further and say that ***the change that you put in place is one of ordinary skill in the art would understand***; and, third, that applied the function and the result, it appears it confirms my opinion that under the Doctrine of Equivalents this element is met.

Tr. 824-25 (emphasis added). Mr. McAlexander further testified on direct that the accused device has an equivalent of Claim 18, element two. *See* Tr. 754 ("By providing feedback, that provides a noise determination, and it's an automatic noise rate determination that stabilizes and places the MAX913 comparator in such a way that you end up with a stable or a constant firing rate on the output."); 761 ("The purpose of the MAX913 comparator as implemented by Asia Optical is to evaluate this ever-changing input and produce a constant noise firing rate; in other words, over time, it's a constant noise firing rate on the output."); 822 ("Q: . . . Mr. McAlexander, does the Nikon/Asia Optical unit produce and output having a constant pulse firing rate out of the comparator circuit? A: Yes, in my opinion, it does.").

- The jury then received further explanation of the equivalency infringement of element two of Claim 18 during Mr. McAlexander's cross-examination. *See* Tr. 880 ("Q: . . . Now as I understand it, you are saying that the feedback loop as depicted here, some of the elements in that could be replaced by a short circuit or a wire that bypasses them; is that right? A: For the purpose of the -- for the function that's required by the claim element, yes."); 881 ("[A]ll of the elements of figure 8 could be shorted out and still provide the automatic noise threshold ***function***."); 882 ("If you desire to do the

automatic noise threshold feedback loop, you can short right across here."); 883 ("Q: . . . And you, however, think that the feedback loop function for the automatic threshold adjustment as claimed could be accomplished without those elements that are in the figure 8 portion of the drawing in front of you; is that correct? A: That is correct. Clearly the automatic threshold adjustment can be performed without those elements. That function is not what those particular elements are directed to."); 894 ("It's my opinion, as I stated in my direct, that a wire substituted for that diode provides the equivalent structure under the Doctrine of Equivalents for the function that's recited in the claim.").[21]

- Lastly, it bears noting that Dr. Chien himself, the inventor of the accused device, admitted in writing that the device contained an automatic noise threshold circuit with a feedback loop that produced a constant pulse firing rate. *See* Pl. Ex. 20 (referring to a diagram showing the feedback loop contained in the accused device, Dr. Chien states: "The purpose of our receiving section is to make sure that the output of comparator is maintained at a constant false alarm condition. . . . The false alarms are generated from the day light noise and circuit induced noise. ***These false alarm noise signals are used to adjust the threshold level to maintain such that the false alarm signal at comparator output is held at a constant false alarm.***") (emphasis added). *See also* Tr. 229 (Chien) (explaining that the words false alarm and noise are synonymous).[22]

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[21] Other testimony from Mr. McAlexander in which he states that the accused device contains the equivalent of the limitations of Claim 18 may be found at Tr. 750 ("Here's the output of the MAX913 that comes out through this conductor, and then this line here, that green line, is the feedback loop."); 752-53 ("[W]hat is happening is a comparison is being made between the first input and the second input for the production of a result. That result is being fed back, so there's a constant dynamic continuous feedback of a result for the comparison to the second input that comes in."); 754 ("By providing feedback, that provides a noise determination, and it's an automatic noise rate determination that stabilizes and places the MAX913 comparator in such a way that you end up with a stable or a constant firing rate on the output."); 820 ("Q: . . . [I]s it your opinion that the Asia Optical Nikon unit has an automatic noise threshold circuit? A: Yes, it does. Q: And is this an example of the automatic noise threshold circuit in the Asia Optical unit? A: Yes. It is the MAX913 comparator circuit with the feedback loop."); 826-28 ("All of that path that I've defined is shorting a wire -- in fact if I could go back to the '913 comparator that you had up earlier. In essence, all of that is shorted with a wire. This is the feedback loop, but it is shorted with a wire.").

[22] The Federal Circuit also has acknowledged that evidence of interchangeability to support a finding of equivalency infringement may also include "copying and designing around." *Texas Instr. Inc. v. Cypress Semiconductor Corp.*, 90 F.3d 1558, 1566 (Fed. Cir. 1996). LTI presented substantial evidence that Defendants copied everything on the receiver section of LTI's invention other than the detector and mode components in figure 8. *See* Tr. 82-87 (Dunne) (testifying that the receiver unit in the Asia Optical device was for all practical purposes an exact copy of the receiver unit identified in LTI's patents); Tr. 745 (McAlexander) (testifying that the "schematic that was provided by Asia Optical was in fact -- at least for purposes of practicing the inventions, was the same"). This is important because in determining whether the feedback loop in the accused device was an equivalent, the evidence of copying helped establish that the feedback loop in the accused device was interchangeable with the feedback loop in figures 3 and 8 of the preferred embodiment. Otherwise, there was no need to copy the remainder of the receiver circuit. Accordingly, the evidence that Defendants copied LTI's receiver section is further proof of equivalency infringement as to Claim 18.

LTI's counsel also then specifically highlighted all of this testimony during closing argument. Indeed, the linking argument goes on for pages in the transcript:

> The issue there then with regard to the automatic noise threshold is whether there is an automatic noise threshold with a constant pulse firing rate, taking into account the Court's construction of a feedback loop composed in part of diode 316 to perform the noise threshold and constant noise pulse firing rate functions. Please remember these claims, as I said, are under the Doctrine of Equivalents.
>
> . . . And what is the evidence? . . . Mr. Dunne and Mr. McAlexander, who both disassembled the accused device and tested it, testified. They are the only two people who tested it who testified about their tests. They both explained that all you need in this process -- let me go to this figure, figure 3, which you may remember. All you need in this case is a wire which in this case is ***interchangeable*** with the diode configuration.
>
> And Mr. Dunne -- excuse me, Mr. McAlexander drew that part. And that's exactly the testimony. That is exactly the testimony by those who disassembled and examined the product about how the automatic noise thresholding and constant noise pulse firing rate work, that it has that and that it produces that. And they showed you how in diagram after diagram, resistor by resistor. All you need is a wire to complete the loop, and you eliminate figure 8. You complete the loop, and you avoid figure 8. That's exactly how the accused device works.
>
> And according not only to the two testers -- and this is very important, not just because I say so, but not only just according to the two testers, Dr. Chien admitted this before he lawyered up . . . .
>
> And how does Dr. Chien describe his, quote, "invention"? He describes it as follows: "The purpose of our receiving section is to make sure the output of the comparator is maintained at constant false alarm condition." Remember "false alarm" Dr. Chien testified is interchangeable with noise.
>
> The circuit as shown in figure 3. "Therefore, the output of the comparator includes a true target reflected signal and many false alarm signals. The false alarm signals are generated from the daylight noise and circuit induced noise." And this is the key sentence: "The false alarm noise signals are used to adjust the threshold level to maintain such that the false alarm signal at comparator output is held at constant false alarm."

> When you're back in the jury room and you're looking at the claims, all you need to do is read this paragraph with the claims. And those claims, again, for your benefit, are 18, 25 and 26 of the '779 patent and 1 through 13 of the '077 patent.
>
> ***So in summary on the automatic noise threshold circuit producing a constant pulse noise firing rate, the claims are all under the Doctrine of Equivalents, substantially the same function, substantially the same way, substantially the same result or to someone skilled in the skill -- ordinary skill, that they're interchangeable. The Nikon device, as Dr. Chien makes plain, as he admits in this document, uses an automatic noise threshold function to create a constant noise pulse firing rate. We tested it. We put on the two people who disassembled the device, and they testified that's exactly how it works.***
>
> Diode 316 is interchangeable with a wire. The testimony of Dunne, McAlexander, who disassembled the device, is clear on that. ***And the best evidence of interchangeability, of course, in addition to Dr. Chien's testimony, is that the Asia Optical unit replaces figure 8, and it automatically adjusts a noise threshold and produces a constant noise pulse firing rate.***

See Tr. 1194-98 (emphasis added); *see also* Tr. 1264-66 ("And that's why there was so much technical testimony by Mr. Dunne, Mr. McAlexander, and the evidence was you just short it with a wire and that completes the loop, takes out some of the modes in the preferred embodiment, but it still produces an automatic noise threshold circuit with a constant noise pulse firing rate.").

In sum, because there was substantial particularized evidence and linking argument under the doctrine of equivalents, the Court must uphold the jury's finding of equivalency infringement on Claim 18.

b. Independent Claim 25 and Dependent Claim 26 of the '779 Patent.

Claim 25 of the '779 Patent also contains two elements, which in turn are depended upon by Dependent Claim 26.[23] Defendants did not dispute the existence of the first element, and

[23] Claim 25 is a method for automatically adjusting a noise threshold in a laser range finder, comprising: (1) generating an electrical signal in response to a received light signal from a laser light receiver, said electrical signal containing signal and noise light pulses; and (2) adjusting a noise threshold of said laser light receiver to a level at which said laser light receiver produces a noise light pulse output having a constant pulse firing rate. The Court

therefore cannot meet their burden. *See* Tr. 1062-64 (Creusere). Moreover, LTI presented substantial, particularized evidence of equivalency infringement and linking argument on the second element, as has already been recounted elsewhere. *See* Part II.E.2.a, *supra*; *see also* Tr. 829-31 (McAlexander). Therefore, because there was substantial particularized evidence under the doctrine of equivalents, the Court must uphold the jury's finding of equivalency infringement on Claim 25. *See Comark*, 156 F.3d at 1189. Moreover, because Claim 26 necessarily depended on and incorporated the elements of Claim 25, and the single additional element of Claim 26 could have been found by the jury to have been literally infringed, *see id.*; Tr. 831-32 (McAlexander), there also was substantial evidence to uphold the jury's finding of equivalency infringement on Claim 26.

3. Proof of Equivalency Infringement on Claim 8 of the '910 Patent.

Claim 8 of the '910 Patent contains five elements.[24] Defendants' counsel affirmatively, expressly, and unconditionally went out of his way to concede that element five was present in

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construed element (2) and part of the preamble to mean "a method including a feedback loop composed in part of diode 316 for adjusting a noise threshold of a laser light receiver to obtain a constant pulse firing rate from the laser light receiver to a level at which said laser light receiver produces a noise light pulse output having a constant pulse firing rate." *Laser Technology*, 215 F. Supp. 2d at 1158.

[24] Claim 8 is for a laser range finder apparatus for determining a range to a target based upon a flight time of a pulse toward said target, said apparatus comprising: (1) a laser transmit section for generating a number of laser pulses for transmission to a target; (2) a laser receive section for receiving reflected laser pulses from said target; (3) a precision timing section coupled to said laser transmit section and said laser receive section for determining a flight time of said laser pulses to said target and said reflected laser pulses from said target; (4) a central processor section coupled to said precision timing section for determining a range to said target derived from said flight time of said laser pulses to said target and said flight time of said reflected laser pulses from said target; and (5) a user selectable target acquisition mode switch coupled to said processor for selecting between at least a high sensitivity mode and a low sensitivity receiver mode of operation.

The Court construed element (3) as follows: "A precision timer coupled to the transmitter and receiver that determines a flight time of laser pulses reflected from a target. A separate clock or timer is not required." *Laser Technology*, 215 F. Supp. 2d at 1159. The Court also construed element (4) as follows: "A processor compares time-of-flight information stored in memory to locate the times-of-flight that occur with the greatest frequency, and

their device to avoid the admission of any evidence concerning that element (the mode switch). *See* Tr. 812. ***Defendants did not qualify their concession to be limited only to literal infringement, and LTI was foreclosed from presenting evidence on the element as to both literal and equivalency infringement.*** *See* Tr. 814-16. Therefore, this element was met both literally and pursuant to the doctrine of equivalents. This fact alone is sufficient to uphold the jury's finding of equivalency infringement, because Defendants cannot, in light of the concession, "establish that there is no substantial evidence in the record that would permit the jury to find that *any* limitation has been met by equivalents." *Comark*, 156 F.3d at 1189. The jury could have concluded and did conclude that element five was infringed literally ***and/or*** under the doctrine of equivalents, *cf. Goodwall Constr. Co. v. Beers Constr. Co.*, 991 F.2d 751, 756-58 (Fed. Cir. 1993) (a finding of both types of infringement is permissible), and could have then found the remaining elements of Claim 8 to have been literally infringed. *See Comark*, 156 F.3d at 1189. On the basis of this concession alone, the Court should honor the finding of equivalency infringement on Claim 8.

In any event, there also was substantial particularized evidence related to the doctrine of equivalents on elements three and four, each of which standing alone also would be sufficient to uphold the finding of equivalency infringement on Claim 8. This was not a case in which there was a dispute over a difference between the accused device and patent Claim 8 such that the difference would result in different outcomes under the doctrine of equivalents and literal infringement. Instead, Defendants' case related to the fundamental concept of how the accused

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uses the most frequent times-of-flight to determine a range to the target. Neither a specific microcomputer nor anything that puts received laser pulses in a 'stack' is required." *Id.* at 1160.

device worked. If it worked as Defendants said, without utilizing time whatsoever, Defendants would prevail on Claim 8 (as interpreted by the Court) as to both literal and equivalency infringement. If, however, Defendants failed to convince the jury of this, which they did (and which, in light of the evidence, no rational jury could have decided differently), LTI would prevail on literal and doctrine of equivalents infringement. Indeed, based on the facts accepted by the jury, Defendants failed to identify any distinction between the device and Claim 8 such that their conclusion would be different as to literal and doctrine of equivalents infringement.

LTI's technical expert, Mr. McAlexander, specifically rendered separate opinions as to whether Claim 8 was infringed literally and under the doctrine of equivalents. *See* Tr. 818-20. Moreover, contrary to Defendants' suggestion, this was not a naked opinion, but rather was supported by the testimony of multiple witnesses (consisting of at least a hundred pages of trial transcript) explaining in detail how the precision timing section and the central processor section operated in the accused device -- including, lengthy explanations of the operation of the source code, the oscillator/clock, and the one-shot component, among other things. For example:

- Mr. Dunne testified on cross-examination that the accused device contained a precision timer for the purpose of determining the time of flight of a laser pulse. *See* Tr. 110. He based his conclusion on his observation that the device contained a "master oscillator, master clock, or oscillator, 40 megahertz, represent[ing] a precision clock source that was feeding the FPGA, therefore clocking it, and that represents a precision timing site to measure flight time of the laser pulse." *Id.*; *see also* Tr. 110 ("It has a precision oscillator feeding a logic circuit that's used as the clocking element for that logic circuit; therefore, from direct observation, a precision timing signal is being used in the logic circuit to clock the signal in from the receiver."); 110-11 ("Q: . . . And you don't know from your own measurements the time that was being measured by this, do you? A: Yes, I do, simply on the basis that since the oscillator represents the time base -- it is a time base, it is being clock, the FPGA is being clocked from that oscillator. It is, therefore, measuring time, because the elements -- the noise pulses and the laser pulses coming out to the receiver are being clocked into the FPGA by that master oscillator, and the time point of every clock is known . . . .").

- Mr. McAlexander in turn testified that the accused device operated without substantial differences to element three of Claim 8. He explained that "the timing section just on the clock alone is 25 billionths of a second, and the way the software code operates with it together it can be precise down to 12 and a half billionths of a second. It's fairly precise." Tr. 810. When asked how flight times were determined by the device, he responded that "the precision time section is used in the device and requires -- the claim limitation is that the precision timing section of the clock is coupled to the transmit and receiving section, and it is, and determines the flight time of the laser pulse to the target and the reflected laser pulses from the target. This is done by the utilization of the precision timing clock in conjunction with the shift register location for specifically time denominated return information into time slots." Tr. 810-11. The jury also then received further lengthy explanation of the equivalency infringement of this element during Mr. McAlexander's cross-examination. *See* Tr. 902-26, 937-48. As to element four, Mr. McAlexander explained that the accused device contained source code in the central processor that "acts on information stored in that array that determines the range to the target that's based upon the flight time of the pulses that was loaded based upon the time denominated clocking of the information to the array." Tr. 811; *see also* Tr. 748 (describing the location of the central processor in the accused device); 773-99, 911-19, 923-33 (explaining, in detail, how the central processor and source code in the accused device operate to determine a target distance measurement based on time-of-flight data).

- Most importantly, Defendants' own witnesses and documents admitted that their device for all practical purposes contained a precision timer that measured the time of flight. For example, Dr. Chien repeatedly testified that the Asia Optical device calculated distance based on the time of flight of the laser pulse. *See* Tr. 211 ("The laser range finder will transmit a pulse, a laser pulse. When the pulse goes to the target and then a back reflection. And then we can receive the reflection signal to measure the time difference, time between the transmitter pulse and receiver pulse."); 212 ("Q: And to distinguish target signals from noise signals, the second generation device maps, assigns and stores both target and noise signals to an addressable memory device with a high frequency latching clock. A: Yes."); 214 ("Q: You map the pulse signal to a memory location using information from a clock. A: Yes."); 275 ("Q: [E]ach bin, each bucket, each position on the conveyer represents a distinct point in time after firing of the laser pulse. A: Yes."); 276 ("Q: Dr. Chien, how do you know what range to program in the system for each bin? In other words, how do you know that bin 1 should be ten yards? A: Every distance -- every position distance marker -- it has to do with the time when you receive the pulse."); 279 ("Q: Dr. Chien, your device uses time to calculate distance, does it not? A: Our distance marker was produced by high frequency oscillator. Distance marker has to do with time."). Additionally, Asia Optical's own product description in its instruction manual and promotional materials states: "Sophisticated circuitry ***and a high speed 'clock'*** are

used to instantaneously (2 sec.) calculate distance ***by measuring the time it takes for each beam to travel from the rangefinder, to the target and back***." Pl. Ex. 81 (emphasis added); *see also* Pl. Exs. 7 & 76 (using almost identical language).

LTI's counsel also specifically highlighted all of this testimony and evidence during closing argument, including the admissions of Dr. Chien and the admissions contained in Defendants' own documents. *See* Tr. 1199-1202, 1266-68. In sum, because there was substantial particularized evidence and linking argument, the Court must uphold the jury's finding of equivalency infringement on Claim 8.

4. Proof of Equivalency Infringement on Claims 1-13 of the '077 Patent.

Claim 1 of the '077 Patent contains four elements,[25] which in turn are depended upon by Dependent Claims 2-13. Defendants did not dispute the existence of the first and fourth elements, and therefore cannot meet their burden under *Comark*. *See* Tr. 1066-67 (Creusere). Moreover, there was substantial particularized evidence related to the doctrine of equivalents on elements two and three, any one of which, standing alone, would be sufficient to uphold the jury's finding of equivalency infringement on this Claim. *See Comark*, 156 F.3d at 1189 (other

[25] Claim 1 is for a laser range finder comprising: (1) a laser transmitting section for producing a series of transmitted laser pulses directable towards a target and producing a plurality of returned laser pulses at least partially reflected therefrom in response thereto; (2) a laser receiving section for receiving said plurality of returned laser pulses and noise pulses, said laser receiving section comprising a laser signal receiving devise coupled to an input of a transimpedance amplifier, said transimpedance amplifier providing an amplified output signal of said laser signal receiving device for input to a comparator circuit for providing an automatic noise threshold adjustment to said laser receiving section to facilitate discrimination between said returned laser pulses and said noise pulses; (3) a central processing section coupled to said laser transmitting and laser receiving sections for determining a distance to said target based on a time of flight of said transmitted and returned laser pulses; and (4) a user viewable display coupled to said central processing section for displaying said distance to said target.

The Court construed element (2) as follows: "For input to a circuit that consists of a feedback loop composed in part of diode 316 for adjusting the noise threshold based on the noise environment in relation to reflected pulses received by the laser receiving section, before the noise signals are parsed out from the actual target signals. The circuit adjusts the noise threshold by comparing incoming pulse values with previously received pulse values to ascertain the noise environment." *Laser Technology*, 215 F. Supp. 2d at 1161. The Court also construed element (3) as follows: "A processor that determines a distance to the target using time-of-flight information from the received laser pulses." *Id.*

elements could have been found to have been literally infringed). The particularized evidence and linking argument with respect to element two, as construed by the Court, has already been recounted elsewhere and will not be repeated here, *see* Part II.E.2.a, *supra*; *see also* Tr. 833-34 (McAlexander), as has the evidence and argument related to element three, *see* Part II.E.3, *supra*.

Because there was substantial particularized evidence under the doctrine of equivalents on one or more of the elements of the claim, the Court must uphold the jury's finding of equivalency infringement on Claim 1. *See Comark*, 156 F.3d at 1189. Moreover, because Claims 2 through 13 necessarily depend on and incorporate the elements of Claim 1, and the additional elements of Claims 2-13 could have been found by the jury to have been literally infringed, *see id.*, there also was substantial evidence to uphold the jury's finding of equivalency infringement on those remaining Claims.

F. Defendants Are Not Entitled to a New Trial As a Result of LTI's Introduction and Use of Exhibit 130.

1. Defendants Have Waived Their Arguments Regarding Exhibit 130 Because They Failed to Make a Timely and Proper Objection at Trial.

As a preliminary matter, even though Defendants state in their introduction that both the admission and use of Exhibit 130 was improper, their argument focuses exclusively on LTI's counsel's use of the exhibit during closing argument. In fact, LTI's closing argument is the only portion of the record to which Defendants cite to demonstrate that trial error occurred.[26] If Defense counsel believed that LTI's counsel was arguing the evidence improperly, Defendants should have objected. It is well established under Tenth Circuit law that a party waives any

[26] Until the closing argument, the only times Exhibit 130 was even mentioned at trial was for a brief period during the cross-examination of Ms. Lin, *see* Tr. 422-24, and for a few questions during the direct examination of Mr. Miller for the purpose of authentication, *see* Tr. 539-40.

argument it may have regarding counsel's statements in closing argument by failing to make a timely objection during the argument. *See Glenn v. Cessna Aircraft Co.*, 32 F.3d 1462, 1465 (10th Cir. 1994) ("A party who waits until the jury returns an unfavorable verdict to complain about improper comments during opening and closing argument is bound by that risky decision and should not be granted relief."); *accord Guides, Ltd. v. Yarmouth Group Property Mgm't, Inc.*, 295 F.3d 1065, 1075 (10th Cir. 2002); *Lane v. Wal-Mart, Inc.*, 1999 WL 51808, at *2 (10th Cir. 1999) (unpublished), attached hereto as Ex. X; *see also, e.g.*, *Billingsley v. City of Omaha*, 277 F.3d 990, 997 (8th Cir. 2002) ("A failure to object to statements made during closing argument waives such an objection."). Defendants' counsel made absolutely no objections during LTI's counsel's closing argument and they sought no limiting instruction. *See also* Part II.F.2, *infra*. Accordingly, Defendants have waived any argument that they are entitled to a new trial because LTI's counsel improperly used Exhibit 130 in closing. For this reason alone, Defendants' request for a new trial based on Exhibit 130 should be denied.

Notwithstanding a lack of argument, even assuming that Defendants are challenging the admission of Exhibit 130 into evidence, they still have waived any objection based on Federal Rule of Evidence 406 because it was never raised at trial. *See* Fed. R. Evid. 103(a)(1) ("Error may not be predicated upon a ruling which admits or excludes evidence unless . . . [i]n case the ruling is one admitting evidence, a timely objection or motion to strike appears on the record, ***stating the specific ground of the objection*** . . . .") (emphasis added); *United States v. Mendoza-Salgado*, 964 F.2d 993, 1008 (10th Cir. 1992) ("Absent a timely and proper objection, the alleged error is waived for appeal except when it constitutes plain error resulting in manifest injustice." (internal quotation marks and citation omitted)); *United States v. Taylor*, 800 F.2d

1012, 1017 (10th Cir. 1986) ("The specific ground for reversal of an evidentiary ruling on appeal must also be the same as that raised at trial."); *see also, e.g.*, *New Market Investment Corp. v. Fireman's Fund Ins. Co.*, 774 F. Supp. 909, 917-18 (E.D. Penn. 1991) ("[I]t is well-settled under the caselaw and clear under Rule 103(a)(1) of the Federal Rules of Evidence that a failure to timely object to the admission of evidence constitutes a 'waiver' of such objection for purposes of post-trial review."). The only evidentiary objections arguably raised by Defendants' counsel at the time of Exhibit 130's admission were those of relevance and prejudice, both of which the Court correctly rejected. *See* Tr. 512. Defendants' counsel did not object or ever once mention Rule 406 in connection with Exhibit 130. Therefore, Defendants' new Rule 406 argument is now waived for failure to make a timely and proper objection at trial.[27]

2. Because Exhibit 130 Was Admitted Into Evidence as Substantive Rebuttal Evidence of Defendants' Copying, LTI's Counsel's Use of the Exhibit During Closing Was Proper.

The only Rule 59 argument that Defendants have briefed regarding Exhibit 130 that is possibly based on a timely objection is their Rule 403 argument, which has already been rejected by this Court. *See* Tr. 514. First, Defendants' Rule 403 argument should be discarded because it is based on the incorrect position that Exhibit 130 was admitted only for the limited purpose of impeachment. Rather, Exhibit 130 was admitted as both impeachment evidence and ***substantive rebuttal evidence*** of Asia Optical's deliberate copying of the Bushnell advertising. *See id.* Such copying is probative of the issues of willfulness and to the credibility of Asia Optical's witnesses, a fact that LTI's counsel explained to the jury. *See* Tr. 1263; *see also Read Corp. v. Portec, Inc.*,

[27] Defendants have not attempted to and cannot show that the admission of Exhibit 130 was plain error resulting in manifest injustice. As stated below in Part II.F.3, the admission of Exhibit 130, even if erroneous, was harmless error that had no substantial influence on the outcome of this case.

970 F.2d 816, 827 & n.7 (Fed. Cir. 1992) (factors relevant to willfulness include whether the infringer deliberately copied the designs or ideas of another -- "'Ideas' and 'design' would encompass, for example, copying the commercial embodiment, not merely the elements of a patent claim"). As such, it was entirely appropriate for LTI's counsel to point out Asia Optical's copying to the jury in closing argument.

Second, at the time Exhibit 130 was offered into evidence, LTI's counsel explained to the Court and opposing counsel its intention to highlight the similarities in the Asia Optical and Bushnell promotional materials to reveal the extensive copying as follows:

> Mr. Cobb: Your Honor, can I go through briefly with the Court how I would contemplate doing this just to make sure that it comports ---
>
> The Court: Well, if I admit the exhibit, the exhibit is in, right?
>
> Mr. Cobb: Yes. And then after I -- after we admit the exhibit, I think my intention would be to put the highlighted version -- I think the simplest way to do it would be to put the highlighted version of the defendants' exhibit on the ELMO and ask Mr. Miller if he has compared the two, and is the highlighted version word for word out of the Bushnell exhibit.
>
> * * *
>
> The Court: We're not going to do that, because you can in your closing argument, if you want to make a big deal out of that, do it.
>
> Mr. Cobb: Very well.

Tr. 516. Consequently, this Court has already explained, in the presence of Defendants' counsel, that LTI's counsel was free to use Exhibit 130 during closing in the manner that he did. Importantly, throughout this entire colloquy between Mr. Cobb and the Court, Defendants' counsel stood by and never once interposed an objection to LTI's counsel's proposed use of Exhibit 130.

Furthermore, Defendants should not now be heard to complain that the jury may have improperly considered Exhibit 130 as circumstantial evidence of infringement based on a propensity to copy. Defendants never once sought a limiting instruction on the use of Exhibit 130 for such purpose, even after having been put on notice that Plaintiff's counsel could highlight the copying issue in closing. *See, e.g.*, *Pope v. Zenon*, 69 F.3d 1018, 1026 (9th Cir. 1996) (failure of counsel to request limiting instruction for impeachment evidence barred appellate review), *overruled on other grounds by United States v. Orso*, 266 F.3d 1030, 1038-39 (9th Cir. 2001); *Proctor v. State*, 221 S.E.2d 556, 560 (Ga. 1975) (finding argument that trial court erred in admitting evidence without limiting instruction that it should be used for impeachment purposes only was without merit when no request for such an instruction was made); *United States v. Pinto*, 394 F.2d 470, 474 (3d Cir. 1968) ("We shall assume, without deciding, that the burden was on petitioner to request a limiting instruction and that his failure to do so would prevent objection to the use of the evidence for substantive purposes if it was admissible for impeachment.").[28]

Finally, there is absolutely no evidence that the jury might have actually considered Exhibit 130 as substantive proof of infringement of LTI's patents. LTI's counsel never once argued to the jurors that they could infer infringement of LTI's patents from the fact that Asia Optical copied the Bushnell advertising. To the contrary, LTI's counsel specifically pointed out to the jury that the importance of Exhibit 130 was to establish Asia Optical's copying for the limited purposes of willfulness and to impeach the credibility of Asia Optical's witnesses. *See*

[28] If Defendants' Rule 59 argument had any merit, Defendants' counsel's failure to object or request a limiting instruction based on LTI's counsel's closing argument is particularly inexplicable given that following LTI's counsel's closing argument, the jury recessed for lunch. This gave Defendants' counsel ample opportunity to raise an objection to LTI's closing argument or to request a limiting instruction outside the presence of the jury.

Tr. 1263 ("These copies are relevant to willfulness, to the copying aspect of willfulness and to credibility. And they're in evidence. They weren't excluded."). In sum, under the circumstances of this case, LTI's counsel's introduction and use of Exhibit 130 was entirely proper, and Defendants are not entitled to a new trial on that basis.

3. Even If the Admission or Use of Exhibit 130 Was Error, It Is Harmless in this Case.

Even assuming, *arguendo*, that Defendants have not waived their Rule 59 argument for failing to object at trial, and that the admission or use of Exhibit 130 at trial was erroneous or improper, Defendants are still not entitled to a new trial because such error is harmless. Under Federal Rule of Civil Procedure 61:

> No error in either the admission or the exclusion of evidence and no error . . . in anything done or omitted by the court or by any of the parties is ground for granting a new trial or for setting aside a verdict . . . unless refusal to take such action appears to the court inconsistent with substantial justice. The court at every stage of the proceeding must disregard any error or defect in the proceeding which does not affect the substantial rights of the parties.

Fed. R. Civ. P. 61. Tenth Circuit law defines an error effecting a substantial right as "an error which had a substantial influence on the outcome or [which] leaves one in grave doubt as to whether it had such effect." *United States v. Charley*, 189 F.3d 1251, 1270 (10th Cir. 1999) (internal quotation marks omitted). In conducting a harmless error review, the Court must consider the record as a whole, *see id.*, and the "burden of demonstrating that substantial rights were affected rests with the party asserting error," *K-B Trucking Co. v. Riss Int'l Corp.*, 763 F.2d 1148, 1155-56 (10th Cir. 1985).

Defendants cannot meet their burden of proof under Rule 61, and have not even tried. Contrary to Defendants' suggestion, Exhibit 130 did not play a central role in LTI's counsel's

closing argument or the trial as a whole. In fact, in support of their Exhibit 130 argument, Defendants cite less than three pages of a trial transcript that comprises well over a thousand pages of argument and testimony. The two sentences of LTI's counsel's closing argument that Defendants quote in their Motion do not instruct the jury that a propensity to copy would permit an inference of patent infringement, and they constitute only a miniscule portion of the almost three hours of closing argument the jury heard. Given the overwhelming quantum evidence in the record supporting the jury's verdict, *see, e.g.,* Parts II.C.1, II.D.3 and II.E, *supra*, the speed with which the jury returned a verdict,[29] and the jury's findings of willful infringement against both Defendants, there can be no doubt that this was not a close case on the issue of infringement and that the admission of and LTI's counsel's references to Exhibit 130 in closing argument did not substantially influence the outcome of this case. *See, e.g.*, *Baron v. Sayre Memorial Hosp., Inc.*, 2000 WL 1014982, at *4 (10th Cir. 2000) (finding improper admission of evidence to be harmless error when there was "ample evidence in the record . . . to support the jury's verdict") (unpublished), attached hereto as Ex. X; *Charley*, 189 F.3d at 1272 (finding error in admission of evidence harmless given strength of admitted evidence and the modest amount of improperly admitted testimony); *Johnson v. Colt Indus. Operating Corp.*, 797 F.2d 1530, 1535 (10th Cir. 1986) (trial court found wrongful admission of opinion harmless error when it was only a small portion of the evidence presented, there was overwhelming evidence supporting the jury's verdict and the appellant's counsel only made a general objection to its admission and refused a limiting instruction); 12 JAMES WM. MOORE, MOORE'S FEDERAL PRACTICE § 61.06[5], at 61-12

[29] The jury only spent approximately six hours in deliberation.

(1995) ("[I]f there is other evidence to support the jury verdict, the error in admission of improper evidence will be harmless.").

Lastly, courts are loathe to grant a new trial based on improper closing argument when, as in this case, the court instructed the jury that the arguments of counsel do not constitute evidence. *See* Tr. 1145; *Greenway v. Buffalo Hilton Hotel*, 951 F. Supp. 1039, 1054-55 (W.D.N.Y. 1997) (fact that jury heard isolated improper comments from counsel did not warrant a new trial when court reminded the jury that the arguments of counsel are not evidence). Based on the circumstances of this case and the entire record, the admission and use of Exhibit 130 was, even if erroneous, harmless error that cannot justify a new trial.

III. CONCLUSION

For the reasons discussed above, LTI respectfully requests that the Court deny in its entirety Defendants' Motion Pursuant to Fed. R. Civ. P. 50(b) and 59 for Judgment as a Matter of Law or a New Trial.

Dated: June 5, 2003

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on this 5th day of June, 2003, a true and correct copy of the foregoing **RESPONSE TO DEFENDANTS' MOTION PURSUANT TO FED. R. CIV. P. 50(b) AND 59 FOR JUDGMENT AS A MATTER OF LAW OR A NEW TRIAL** has been sent to the following:

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