

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

BX LED LLC,

Plaintiff,

v.

WALMART INC.,

Defendant.

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Case No. 6:22-cv-00445-ADA-DTG

JURY DEMANDED

**PLAINTIFF’S SUR-REPLY TO
DEFENDANT’S REPLY CLAIM CONSTRUCTION BRIEF**

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No. 2:13-cv-00178, 2014 WL 2885296, at *25 (E.D. Tex. June 25, 2014) 1

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Exhibit	Description
V	U.S. Patent No. 7,891,838
W	U.S. Patent No. 8,567,988 File History (July, 5, 2013 Notice of Allowability)
X	U.S. Pat. No. 9,504,122 Fluorescent Replacement LED Lamps - Power Rails
Y	U.S. Pat. No. 10,120,010 Method and System for Localization on a DC Lighting and Power Grid - Power Rails
Z	U.S. Pat. Pub. No. 20210315080A1 A flyback converter and led driver using the flyback converter - Power Rails

V. U.S. Patent No. 8,567,988

A. “efficient thermal path” (Claim 1)

Term	BX LED Construction	Walmart Construction
“efficient thermal path”	Plain and ordinary meaning	Indefinite
Proposed by Walmart	Alternatively, “the path for heat dissipation created by mounting an LED directly to a substrate with high thermal conductivity without intervening insulating materials”	

Walmart argues that “efficient thermal path” has no objective basis for determining efficiency. Walmart’s Opening Brief, Dkt 23 at 14. Yet, in its Reply, Walmart concedes that specification discloses at least “one potential example of an efficient thermal path.” Reply, Dkt. 30 at 11. Walmart then cites *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) for the proposition that one example is insufficient. Plaintiff’s Response, however, highlights at least six references in the specification to an “efficient thermal path,” all referring to the connection to a substrate with high thermal conductivity (such as metal) creating an “efficient” thermal path and contrasting to an “inefficient” thermal path that has low thermal conductivity. *See* ’988 Patent, Dkt 28-6 at 1:44-46, 4:47-53, 4:54-59, 5:10-12, 5:55-56.

While Walmart argues that a POSITA would determine thermal efficiency by “calculating the sum of all ‘routes’ by which heat may escape.” Reply, Dkt. 30 at 12. This is not supported by the intrinsic evidence. For example, in its Office Action Response Remarks, dated May 28, 2013, the patentee explains precisely what “creates” the efficient thermal path. “[T]he **efficient thermal path is created by the LED chips mounted directly to the reflective substrate . . .**” May 28, 2013 Response to Office Action, Dkt. 23-15 at 6 (emphasis added). The patentee further explains that:

the term “directly” is defined as excluding any intervening elements (between the plurality of LED chips and the surface of metal substrate), *cf.*, above-identified

application paragraph [0019]. **Because in general metals have high thermal conductivity, such direct mounting results in creation of an efficient thermal path** allowing heat to pass from the plurality of LED chips to the metal substrate

Office Action Response Remarks dated July 20, 2012, Dkt. 23-14 at 6. A POSITA would also understand these disclosures to inform, with reasonable certainty, about the scope of the claim. Roberts Decl., ¶¶ 69-72. Because the intrinsic record of the '988 Patent sufficiently describes the term such that a skilled artisan could determine the scope of the claims, the term is not indefinite. *Niazi Licensing Corp. v. St. Jude Med. S.C., Inc.*, 30 F.4th 1339, 1349 (Fed. Cir. 2022).

Walmart also argues that the addition of the word “efficient” was added to overcome prior art and that Plaintiff’s alternative construction “reads out this amendment.” Reply, Dkt. 30 at 12. Walmart’s description of this prosecution history is flawed. First, in its remarks, the patentee explains that it is the “direct” bonding to the highly thermally conductive substrate that creates the efficient thermal path. July 20, 2012 Response to Office Action, Dkt. 23-14 at 6, 8, 10. The patentee explains that in the referenced art “the LED chips are *not mounted directly* to the reflective surface of the metal substrate as the term is defined, because of the presence of an *intervening insulating* materials applied to the metallic base substrate.” *Id.* at 8. Thus, the patentee distinguished the reference because the claimed invention was “directly mount[ed]” with no “intervening insulating materials” — precisely what it described in Plaintiff’s alternative construction. Thus, the Court should hold that the term “efficient thermal path” as used in the '988 Patent is not indefinite.

B. “electrical path formed by connecting the LED chips in a chip to chip fashion” (Claim 1)

Term	BX LED Construction	Walmart Construction
“an electrical path formed by connecting the LED chips in a chip to chip fashion” Proposed by Walmart	Plain and ordinary meaning	“electrically connecting one LED chip directly to another LED chip”

Walmart argues that the Patentee disavowed all claim scope except its narrow proposed construction. Reply, Dkt. 30 at 13-14. In Walmart’s cited prosecution history distinguishes the cited prior art, Yamada, because it:

fails to disclose an electrical path formed by connecting the LED chips in a chip to chip fashion," as recited in claim 1. Instead, **Yamada discloses that each LED chip is connected to the metal substrate 1 through wires 3**, which is different than claim 1. **Yamada's electrical connections between the LED chips and the metal substrate** are clearly illustrated in Yamada's FIGS. 2, 3, and 5, **which show all the LED chips 2 independently connected to the metal substrate 1 via the metal wires 3. In paragraph [0018], Yamada also teaches that the LED chips 2 are die-bonded to the metal substrate 1 and mounted by wire bonding with metal wires 3.**

Dkt. 23-15 at 4-6.

Thus, Yamada was distinguished in two ways. First, in that “Yamada discloses that each LED chip is connected to the metal substrate [] through wires.” And second, in that Yamada taught “that the LED chips 2 are die-bonded to the metal substrate [] and mounted by wire bonding the metal wires [].” Dkt. 23-15 at 4-6. “Either or both of these distinctions were sufficient to distinguish Yamada as not teaching or anticipating connection in a chip to chip fashion.” Roberts Decl. Dkt. 28-1, ¶ 77. These statements and noted distinctions do not justify narrowing the plain and ordinary meaning of this term to exclude valid chip to chip connections. For example, a chip to chip connection that did not use wire bonds to the substrate, such as by use of passive non-substrate connections, could “still conform with the distinctions cited by the patentee.” Roberts

Decl., Dkt. 28-1, ¶¶ 77-79. Moreover, nothing in the prosecution history remotely adopts the “directly to” language proposed by Walmart. Its construction should be rejected.

VI. U.S. PATENT NO. 8,998,433

A. “configured to irradiate a wavelength conversion component with excitation energy” (Claim 1)

Term	BX LED Construction	Walmart Construction
“configured to irradiate a wavelength conversion component with excitation energy” Proposed by Walmart	Plain and ordinary meaning.	“designed to direct light through a wavelength conversion component”

Walmart asserts that the core disputes respecting this term are whether “excitation energy” is limited to “light,” and whether “configured to irradiate” means “designed to direct.” Walmart misses the point. Instead, Walmart has removed the term “excitation energy” from the claim altogether and added a “direction” limitation where none exists. Ostensibly, this is under the guise of simplifying “complicated terms” for the benefit of the jury. But juries are more intelligent than Walmart gives them credit for, and the justification ignores the purpose of claim construction.

Walmart argues that maintaining the express scope of claim language “puts form over function.” Reply, Dkt. 30 at 15. But the function of photo-luminescent materials, such as phosphor, is to absorb radiation and re-emit some other band of radiation. Roberts Decl., Dkt. 28-1 at ¶¶ 84-86; ’433 Patent, Dkt. 28-7 at 5:59-67 (using the term “radiation source” in describing the irradiating material). Thus, as is clear from the claim itself, the ‘radiation source’ must be placed (or ‘configured’) in such a way that it performs its function (‘irradiates’) the ‘wavelength conversion component’. *Id.* at ¶¶ 84-86. There is nothing to suggest that “light” must be “directed” in a certain way. And moreover, “radiation” has a property of “irradiating” (used in the claim),

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CERTIFICATE OF SERVICE

The undersigned counsel for Plaintiff hereby certifies that a copy of the foregoing document was served on counsel of record on March 24, 2023 by the Court's ECF system.

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