

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO
Judge Christine M. Arguello**

Civil Action No. 16-cv-01762-CMA-KMT

RMH TECH LLC, a Colorado limited liability company, and
METAL ROOF INNOVATIONS, LTD.,

Plaintiffs,

v.

PMC INDUSTRIES, INC., a Connecticut corporation,

Defendant.

ORDER ON CLAIM CONSTRUCTION

Plaintiffs RMH Tech LLC ("RMH") and Metal Roof Innovations, Ltd. ("MRI") are, respectively, owner and licensee of United States Patent No. 6,470,629 (the '629 Patent).¹ In this action, Plaintiffs allege that Defendant PMC Industries, Inc ("PMC") infringed certain terms of the '629 Patent. (Doc. # 1.) This matter is before the Court for construction of the disputed terms in the '629 Patent.

I. BACKGROUND

Plaintiff RMH is in the business of developing, manufacturing, marketing, and selling mounting devices for securing various apparatus to the standing seams of metal roofs. (Doc. # 1 at 3.) On October 29, 2002, the United States Patent and Trademark Office ("USPTO") granted the '629 Patent for a "Mounting System and Adaptor Clip,"

¹ The '692 Patent appears in the docket at Doc. # 1-2. For the purpose of this Order, the Court will cite the Patent as follows: (Patent, X:AA-BB), where X references the column number and AA-BB reference the line numbers.

naming Robert M. Haddock as the inventor. (*Id.*) The '629 Patent describes and claims a mounting assembly for mounting a cross member to a standing metal roof. (*Id.*)

Plaintiffs initiated this action on July 11, 2017, alleging Defendant infringed claims 15, 26, 20 and 35 of the '629 Patent. (Doc. # 1 at 7-9.) On January 25, 2017, Defendant filed its Amended Opening Claim Construction Brief. (Doc. # 37.) On the same day, the parties submitted their Amended Joint Disputed Claim Chart, detailing the nine claim terms at issue and disclosing their preferred constructions. (Doc. # 36.) Plaintiffs filed their response to the opening brief on February 3, 2017 (Doc. # 38), and Defendant thereafter replied (Doc. # 44).

On May 11, 2017, the Court held a *Markman* hearing, at which counsel presented argument in support of their respective constructions. No witnesses testified at the hearing. (Doc. # 52.) At the Court's direction, the parties thereafter filed supplemental briefing on a narrow range of issues raised at the *Markman* hearing. (Doc. ## 53. 54. 55.)

II. LAW

a) **General Principles of Claim Construction**

The fundamental purpose of a patent is to give notice to others of that in which the inventor claims exclusive rights. *Oakley Inc. v. Sunglass Hut Int'l*, 316 F.3d 1331, 1340 (Fed. Cir. 2003). Claim terms carry a presumption that "they mean what they say and have the ordinary meaning that would be attributed to those words" by a skilled artisan. *ACTV, Inc. et al. v. Walt Disney Co. et al.*, 346 F.3d 1082, 1088 (Fed. Cir. 2003) (quoting *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202 (Fed. Cir.

2002)). That presumption is only rebutted if the inventor used words of manifest exclusion/restriction in the patent's specification or during prosecution of the application(s) from which the patent issued **and** those words represent a clear disavowal of claim scope. See *ACTV*, 346 F.3d at 1091 (citing *Teleflex, Inc. v. Ficosa N. Am. Corp. et al.*, 299 F.3d 1313, 1324 (Fed. Cir. 2002)).

When construing claim terms, courts first look to, and primarily rely on, the intrinsic evidence, including the prosecution history and the specification, which is usually dispositive. *Phillips v. AWH Corp.*, 415 F.3d 1303, 13115 (Fed. Cir. 2005) (*en banc*). “When interpreting the claims, the written description is of particular import, and it is ‘entirely appropriate for a court, when conducting claim construction, to rely heavily on [it] for guidance as to the meaning of the claims.’” *SkinMedica, Inc. v. Histogen Inc.*, 727 F.3d 1187, 1195 (Fed. Cir. 2013) (quoting *Phillips*, 415 F.3d at 1317) (alterations in original).

Courts may also rely on extrinsic evidence, consisting of “all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Phillips*, 415 F.3d at 1318. “[E]xtrinsic evidence in general” is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.*

During claim construction, terms are not always afforded their ordinary meaning. *SkinMedica*, 727 F.3d at 1195. If the specification reveals “a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess[,] . . . the inventor’s lexicography governs.” *Id.* (quoting *Phillips*, 415 F.3d at 1316)

(alteration in original); *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1381 (Fed. Cir. 2008) (explaining that inventors' definition of a claim term controls when they "clearly express an intent" to redefine a term used in the claims). If the specification reveals "an intentional disclaimer, or disavowal, of claim scope by the inventor," the scope of the claim, "as expressed in the specification, is regarded as dispositive." *Phillips*, 415 F.3d at 1316 (citing *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1343-44 (Fed. Cir. 2001)). "Disclaiming the ordinary meaning of a claim term—and thus, in effect, redefining it—can be affected through 'repeated and definitive remarks in the written description.'" *SkinMedica*, 727 F.3d at 1196 (quoting *Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1374 (Fed. Cir. 2008)). The Federal Circuit has "recognize[d] that the distinction between using the specification to interpret the meaning of a claim and importing limitations from the specification into the claim can be a difficult one to apply in practice." *Phillips*, 415 F.3d at 1323.

Terms must be construed in light of the entirety of the patent, not just in the context of the particular claim(s) they appear in. *Id.* at 1313. Because the patent is examined as a whole, the Court assumes that claim terms will normally be used consistently throughout the patent, and thus, the meaning of a term used in one claim can illustrate the meaning of that same term used elsewhere in the patent. *Id.* at 1314.

Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent. *Id.* at 1317. "Yet because the prosecution history reflects an ongoing negotiation between the PTO and the applicant, rather than

the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.” *Id.*

b) The Legal Standards for Construing “Means-Plus-Function” Claim Limitations under 35 U.S.C. § 112(f)

The parties agree that limitations recited in claims 15 and 20 of the ‘629 Patent are drafted in “means-plus-function” format to be construed by the Court “to cover the *corresponding structure*, material, or acts described in the specification *and equivalents thereof.*” 35 U.S.C. § 112(f) (emphasis added). Hence, unlike an ordinary claim, a means-plus-function claim only covers that structure specifically described and shown in the specification and drawings of the patent.

The Federal Circuit has held that the construction of a means-plus-function limitation “involves two steps.” *See, e.g., Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*, 296 F.3d 1106, 1113 (Fed. Cir. 2002). First, “the court must identify the claimed function,” which must be construed “to include the limitations contained in the claim language, and only those limitations.” *Id.* Second, after identifying the claimed function, “the court must then determine what structure, if any, disclosed in the specification corresponds to the claimed function. To qualify as corresponding, the structure must not only perform the claimed function, but the specification must clearly associate the structure with performance of the function.” *Id.*

The current means-plus-function provision of the U.S. Patent Act does not “*expand* the scope of the claim” but instead “operates to *cut back* on the types of *means* which could literally satisfy the claim language.” *Johnston v. IVAC Corp.*, 885 F.2d 1574, 1580 (Fed. Cir. 1989). Not surprisingly, because means-plus-function claim

limitations are narrowly construed, they have fallen out of favor and are not commonly employed in patent applications today.

As this Court has noted, a claim written in mean-plus-function format “portrays a function to be executed but provides no instructions as to the structure or materials for executing this function.” *Caught Fish Enterprises v. Contek, Inc.*, 509 F.Supp.2d 954, 966 (D. Colo. 2007) (citing *Phillips*, 415 F.3d at 1311). “35 U.S.C. § 112(f) restricts claim limitations written in this format to those structures, materials, or acts disclosed in the specification that perform the claimed function, and their equivalents.” *Id.* (citing *Personalized Media Communs., LLC v. ITC*, 161 F.3d 696, 703 (Fed.Cir.1998).

III. ANALYSIS

Plaintiffs accuse Defendant of infringing Claims 15, 16, 20, and 35 of the ‘629 Patent. Those claims are reproduced below, with the nine terms or phrases to be construed by the Court denoted in bold.

15. A mounting system that comprises:
 first and second **mounting clamps**;
 first and second **mounting adaptors**, wherein each of said
 first and second mounting adaptors comprises **first and
 second mounting adaptor portions**, wherein said first
 mounting adaptor portion of said first mounting adaptor
 is disposed on said first **mounting clamp**, and wherein said
 first mounting adaptor portion of said second mounting
 adaptor is disposed on said second **mounting clamp**;
 first and second fasteners that anchor said first adaptor
 portion of said first and second mounting adaptors,

16. The mounting system of claim 15, wherein:
 said **first adaptor portion** of each of said first and second
mounting adaptors comprises a first hole, wherein said first
 and second fasteners extend through said first hole on said
 first and second **mounting adaptors**, respectively, and into
 said first and second **mounting clamps**, respectively.

20. The mounting system of claim 15, further comprising:
means for limiting relative movement between each of said first and second mounting adaptors and said cross member to a direction that is parallel with a longitudinal extent of said cross member.

35. A method for **interconnecting a cross member with a mounting surface**, comprising the steps of:
 attaching first and second **mounting clamps** to displaced locations **on said mounting surface**;
positioning first and second mounting adaptors on said cross member such that both of said first and second **mounting adaptors** fail to span an entire distance between said first and second **mounting clamps** after said positioning step;
 passing a first fastener through said first mounting adaptor and into said first **mounting clamp**; and
 passing a second fastener through said second mounting adaptor and into said second **mounting clamp**.

The Court will take each term in the order it was presented in the opening construction brief.

1) Disputed Phrase: “mounting clamp”

Relevant Asserted Claims	Plaintiffs’ Proposed Construction	Defendant’s Proposed Construction
15, 16, 20, and 35	A unitary body having a slot for receiving a raised portion of a mounting surface and designed to interface with a mounting adaptor.	No construction required.

The Court concludes that there is no need to construe the term “mounting clamp.” The dispute here concerns whether any type of clamp can be used with the inventive system or if the clamp must have a unitary body. The Plaintiffs argue that the

phrase “mounting clamp” is defined by implication as a unitary body when, in the process of describing the mounting clamp, the patent language identifies “suitable mounting clamps” in four unrelated patents, all of which disclose a unitary body. (Doc. # 38 at 4–5); (Patent, 4:42–44, 49–54.) However, the patent only refers to the mounting clamp apparatus in each of the four example patents as “suitable.” It does not logically follow that the body must be always be unitary. Other than this oblique reference, the ‘692 Patent never endeavors to more specifically describe or otherwise limit the phrase “mounting clamp.” Because the patent does not use manifest language of exclusion to narrow the meaning of “mounting clamp,” the construction put forth by the Plaintiffs is inappropriate.

2) Disputed Phrase: “mounting adaptor”

Relevant Asserted Claims	Plaintiffs’ Proposed Construction	Defendant’s Proposed Construction
15, 16, 20, and 35	Generally rectangular shaped bodies having first and second areas and that interfaces with the mounting clamp, and a cross member respectively.	A clip having a planar attachment portion, a planar alignment portion, and a raised beaded portion positioned between the attachment portion and the alignment portion, configured so that the mounting adaptor is engaged and interconnected with the cross member by aligning it with and sliding it onto the cross member along the longitudinal axis of the cross member.

Claim 15 textually requires a two-portioned mounting adaptor – one portion that interfaces with a cross member and a second that interfaces with the mounting clamp.

The Patent's text confirms that the mounting adaptor must interface with the mounting clamp and cross member, and have distinct first and second areas. Finally, the Patent only discloses a rectangularly shaped mounting adaptor and, given the function of the adaptor (i.e. to interface with the cross member), a shape other than generally rectangular would not work for its intended purpose. (Patent, 4:3-18); see also *Bell Atl. Network Servs v. Covad Communs. Group*, 262 F.3d 1258, 1271 (Fed. Cir. 2001).

In effect, Defendant's construction asks this Court to limit "mounting adaptor" to the exact device shown in Figure 3, suggesting that this is the only "adaptor" disclosed in the Patent. However, nothing in the language requires "adaptor" to be so limited. Without unequivocal limiting language in the Patent, it is improper to limit the claim term to a preferred embodiment. *Creo Prods., Inc. v. Presstek, Inc.*, 305 F.3d 1337, 1346 (Fed. Cir. 2002); *Bristol Co., Ltd. P'ship v. Bosch Rexroth Inc., et al.*, 684 F. Supp. 2d 1245, 1281 (D. Colo. 2010) ("Disclosed structures in a patent include not only the 'preferred' or primary embodiment of a structure to accomplish the function in question, but also 'any alternative structures identified.'" (internal citations omitted)). The Patent explicitly provides that "Fig. 3 is a cross-section of a mounting adaptor constructed in accordance with **one embodiment of the present invention.**" (Patent, 3:54-56) (emphasis added). That language necessarily implies other inventive embodiments, and it is thus unsurprising that the Patent further states:

Although the present invention has been discussed in terms of a particular illustrated embodiment, it should be noted that other configurations may be employed. For example, the channel portion 204 of the panel support member 108 need not be in a generally circular shape, as in the illustrated embodiment.

(Patent, 7:56–61). This language is clear intrinsic evidence demonstrating that the Claim does not limit “mounting adaptor” to the figure disclosed in Fig. 3. The construction proposed by Defendant is inappropriately narrowing. The Plaintiffs’ construction more accurately captures the native flexibility of the term.

3) Disputed Phrase: “first and second mounting adaptor portions; i.e., a first mounting adaptor portion and a second mounting adaptor portion”

Relevant Asserted Claims	Plaintiffs’ Proposed Construction	Defendant’s Proposed Construction
15, 16, and 20	The mounting adaptors each have a first distinct area separated from a second distinct area of the body.	<p><u>First mounting adaptor portion</u>: the attachment portion of the mounting adaptor</p> <p><u>Second mounting adaptor portion</u>: the beaded portion and alignment portion of the mounting adaptor</p>

The parties agree the claimed “mounting adaptors” require two distinct portions. Their constructions diverge on whether the terms need be further limited beyond identifying distinct first and second portions.

The Court concludes that Defendant’s construction inappropriately imports limitations to Claim 15 that are found in unasserted dependent Claim 18. That Claim requires the “second portion of [each mounting adaptor] comprises a raised portion . . . and a beaded portion that extends from a portion of said inner wall of said raised portion . . .” (Patent, 10:51–61.) Defendant’s proposed construction would render Claim 18 superfluous, and is thus inappropriate. See *XY, LLC. v. Trans Ova Genetics, LC*, No. 13-cv-0876-WJM-BNB, 2014 U.S. Dist. LEXIS, 142545, *14 n. 1 (D. Colo. Oct. 7, 2014);

Otter Prods., LLC v. Treefrog Devs. Inc., No. 11-cv-02180-WJM-KMT, 2012 U.S. Dist. LEXIS, 139253, *34 (D. Colo. Sept. 27, 2012) (internal citations and quotations omitted)

4) Disputed Phrase: “cross member”

Relevant Asserted Claims	Plaintiffs’ Proposed Construction	Defendant’s Proposed Construction
15, 16, 20, and 35	A panel with a channel adapted to receive a roofing material and having a rear portion with an outwardly extending multi-surfaced protrusion designed to mate with corresponding substantially inverse surfaces of the second portion of the mounting adaptor.	A panel support member that spans the distance between at least two adjacent mounting clamps, and slidably receives the mounting adaptor in a closely fitting relationship, that includes an upright portion, a planar portion extending away from the upright portion, a channel portion, and an alignment channel.

The Patent uses “cross member” and “panel support member” interchangeably, describing it as including a channel to secure snow, etc. to a roof and that attaches to a mounting adaptor via a rearward extending projection. (Patent, 4:3–6, 5:44–48, 4:56–64.) One disclosed embodiment of the “cross member” illustrates this attachment as an interface between the channel portion and the beaded portion of the mounting adaptor. (Patent, Fig. 1.) The Patent, however, allows for other attachment configurations:

For example, the channel portion 204 of the panel support member 108 **need not be in a generally circular shape, as in the illustrated embodiment.** All that is required is that it be shaped to allow movement along the line perpendicular to a cross section of the panel support member 108 when mated with a corresponding section of the mounting adaptor 112.

(Patent, 7:58–64; see *also* 4:62–64 (“the first channel portion 204 may be constructed from a series of straight segments”).) Defendant’s proposed construction is narrower

than the disclosed design to the degree that it describes a merely preferred embodiment. By contrast, Plaintiffs’ construction conforms to the intrinsic evidence, and is accordingly adopted by the Court.

5) Disputed Phrase: “first and second means for detachably interconnecting said cross member with said second adaptor portion of said first and second mounting adaptors, respectively”

Relevant Asserted Claims	Plaintiffs’ Proposed Construction	Defendant’s Proposed Construction
15, 16, and 20	First and second surfaces of the second portion of each mounting adaptor that interface with substantially inverse surfaces of the cross member protrusion.	The corresponding structure that performs the claimed function is specifically shown in Figures 1-3 of the ‘629 Patent and described in the specification and includes: (a) a planar leg of the cross member that extends away from the upright leg of the cross member; (b) located at the end of the planar leg of the cross member, a channel portion that has a generally C-shaped cross section or is constructed from a series of straight segments; (c) a raised “beaded” portion of the mounting adaptor that defines a hollow space, is positioned between an alignment portion of the mounting adaptor and an attachment portion of the mounting adaptor, and has inner surfaces that closely mate with the outer surfaces of the channel portion of the cross member so that the raised beaded portion of the mounting adaptor is engaged and interconnected with the channel portion of the cross member by aligning the beaded portion of the mounting adaptor with the channel portion of the cross member and then sliding the mounting adaptor onto

		and along the length of the cross member; and (d) an alignment channel formed at the intersection of the alignment leg and the upright leg that slidably receives an alignment lip of the mounting adaptor in a closely fitting relationship.
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This limitation is drafted in means-plus-function format requiring identification of the claimed function, which is “detachably interconnecting.” See *Cardiac Pacemakers*, 296 F.3d at 1113. That language does not require anything more than the “cross member” and the “second adaptor portion” of the mounting adaptor have mating surfaces that can connect and disconnect from each other. One structure that allows for this is shown in Figs. 1-3 of the Patent. But this is not the only structure disclosed in the Patent that allows for detachable interconnection of the “cross member” and “second adaptor portion”:

[T]he channel portion 204 of the panel support member need not be in a generally circular shape, as in the illustrated embodiment. All that is required is that it be shaped to allow movement along the line perpendicular to a cross section of the panel support member 108 when mated with a corresponding section of the mounting adaptor.

(Patent, 7:58–64; see also 4:62–64 (“the first channel portion 204 may be constructed from a series of straight segments”).) A functional equivalent of the disclosed structure would be any mating configuration that allows for movement of the cross member along the second adaptor portion in a line perpendicular to a cross section of the cross member. Because Defendant’s construction improperly limits the claim to only the structure shown in Figures 1–3 of the Patent, it is inappropriate. See *Bristol*, 684 F. Supp 2d at 1281. By contrast,

Plaintiffs’ construction accurately captures the range of permissible structures as set forth by the text of the Patent, and is accordingly adopted by the Court.

6) Disputed Phrase: “means for limiting relative movement between each of said first and second mounting adaptors and said cross member to a direction that is parallel with a longitudinal extent of said cross member”

Relevant Asserted Claims	Plaintiffs’ Proposed Construction	Defendant’s Proposed Construction
20	Partially affixing the first portion of the mounting adaptor to the mounting clamp such that the cross member can only move in a longitudinal direction, while the second portion of the mounting adaptor is engaged with the protrusion of the cross member.	The corresponding structure that performs the claimed function is specifically shown in Figures 1-3 of the ‘629 Patent and described in the specification and includes: (a) a planar leg of the cross member that extends away from the upright leg of the cross member; (b) located at the end of the planar leg of the cross member, a channel portion that has a generally C-shaped cross section or is constructed from a series of straight segments; (c) a raised “beaded” portion of the mounting adaptor that defines a hollow space, is positioned between an alignment portion of the mounting adaptor and an attachment portion of the mounting adaptor, and has inner surfaces that closely mate with the outer surfaces of the channel portion of the cross member so that the raised beaded portion of the mounting adaptor is engaged and interconnected with the channel portion of the cross member by aligning the beaded portion of the mounting adaptor with the channel portion of the cross member and then sliding

		the mounting adaptor onto and along the length of the cross member; and (d) an alignment channel formed at the intersection of the alignment leg and the upright leg that slidably receives an alignment lip of the mounting adaptor in a closely fitting relationship.
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This limitation is also drafted in means-plus-function format. The recited function is “limiting relative movement.” On this point, the Patent relevantly states “[a]ll that is required of the first channel portion 204 is that it **be capable of** slidably receiving the mounting adaptor 112 in a direction parallel to the longitudinal axis of the panel support member 108, while resisting movement of the panel support member 108 relative to the mounting adaptor 112 in all other directions.” (Patent, 4:64-5:2) (emphasis added). Plaintiffs’ proposed construction meets the requirements of the patent. Defendant’s does not, because the proposed construction of Claim 20 is identical to its proposed construction for the “first and second means for detachably interconnecting” limitation found in Claim 15, which runs afoul of the doctrine of claim differentiation. See XY, 2014 U.S. Dist. LEXIS, 142545 at *14 n.1 Accordingly, the Court adopts Plaintiffs’ proposed construction.

7) Disputed Phrase: “mounting surface”

Relevant Asserted Claims	Plaintiffs’ Proposed Construction	Defendant’s Proposed Construction
35	No construction required.	Building surface

After conferring at the *Markman* hearing, the parties agreed that there is no need for this Court to construe the phrase “mounting surface.” Accordingly, the phrase will not be construed.

8) Disputed Phrase: “interconnecting a cross member with a mounting surface”

Relevant Asserted Claims	Plaintiffs’ Proposed Construction	Defendant’s Proposed Construction
35	No construction required.	Sliding a mounting adaptor onto and along the length of a cross member in a direction parallel to the longitudinal axis of the cross member, wherein the first channel portion of the cross member is closely mated with the beaded portion of the mounting adaptor, and the lip of the alignment portion of the mounting adaptor is received by the channel of the cross member in a closely fitting relationship, so that the cross member resists movement relative to the mounting adaptor in all other directions, and a fastener secures the mounting adaptor to the mounting clamp.

Plaintiffs oppose Defendant’s proposed construction on the basis that it inappropriately imports limitations regarding slidable connection into the claims, and that it is overly complicated. (Doc. # 38 at 14.)

In determining the meaning of a claim term, this Court reads the term “in the context of the entire patent, including the specification.” *Phillips*, 415 F.3d at 1313. The specification is “the single best guide to the meaning of a disputed term.” *Id.* at 1315 (quotations and citation omitted); see also *Markman v. Westview Instruments, Inc.*, 52

F.3d 967, 979 (Fed.Cir.1995) (“The specification contains a written description of the invention that must enable one of ordinary skill in the art to make and use the invention. For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims.”).

Reviewing the term in light of the entire patent, and in particular the specification, this Court adopts Defendant’s proposed construction. The phrase “interconnecting a cross member with a mounting surface” is found in Claim 35. The claim language requires that the “interconnecting” acts include “attaching first and second mounting claims to displaced locations on said mounting surface” and “positioning first and second mounting adaptors on said cross member...” (Patent, 13:1–7.) To accomplish those steps, the ‘629 Patent requires that the mounting adaptor slide “onto and along the length of the cross member in a direction parallel to the longitudinal axis of the cross member” and “that the cross member resists movement relative to the mounting adaptor in all other directions,” as set forth in Defendant’s definition. This is well supported in the specification. For example, the ‘629 Patent states that the cross member “108 generally includes a first channel portion 204 adapted to slidably receive the mounting adaptor 112.” (Patent, 4:56–58.) “All that is required of the first channel portion 204 is that it be capable of slidably receiving the mounting adaptor 112 in a direction parallel to the longitudinal axis of the panel support member 108, while resisting movement of the panel support member 108 relative to the mounting adaptor in all other directions.” (Patent, 4:64, 5:2.)

There is additional support for the requirement that the interconnection include a sliding movement. See, e.g, (Patent, Abstract) (“[t]he panel support member and the mounting adaptor are slidably interconnected to each other”); (Patent, 4:9-17) (“specifically, the mounting adaptor 112 engages the panel support member 108 in such a way that movement of the panel support member 108 with respect to the mounting adaptor 112 can only occur along a line perpendicular to the view illustrated in FIG 1); (Patent, 7:6-17) (“As illustrated in FIG. 1, the first channel portion 204 of the panel support member 108 and the beaded portion 312 of the mounting adaptor 112 are closely mated, so that the mounting adaptor 112 may be engaged with the panel support member 108 by aligning it and then sliding it into the panel support member 108 in a direction perpendicular to the view of the illustration ...”); (Patent, 7:32-36) (“[w]ith the panel support member 108 and the mounting adaptor 112 interconnected as above described, the mounting adaptor 112 may be positioned along the length of the panel support member 108 by sliding it to the desired position.”)).

Taken together, there is ample support for the proposed construction in the ‘629 Patent, and Plaintiffs do little to dispute its wording or the fact that it is fully substantiated by the specification. Accordingly, the Court adopts Defendant’s proposed construction.

9) Disputed Phrase: “positioning first and second mounting adaptors on said cross member”

Relevant Asserted Claims	Plaintiffs’ Proposed Construction	Defendant’s Proposed Construction
35	No construction required.	Sliding first and second mounting adaptors onto and along said cross member in a direction parallel to the longitudinal axis of the cross member to position the mounting adaptors on the cross member.

The Plaintiffs again oppose Defendant’s proposed construction on the basis that it inappropriately imports reference to slidable interconnection. For the same reasons set forth above, this Court adopts Defendant’s proposed construction. The ‘629 Patent is littered with references to slidable interconnection, from the Abstract through the specifications. In describing longitudinally-sliding interconnection over twenty times in the patent, “the patentee has defined that term by implication.” *Bell Atl.*, 262 F.3d at 1271.

IV. CONCLUSION

Based on the foregoing, the Court finds that the contested terms are construed as follows:

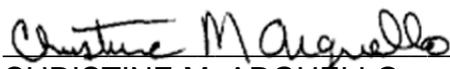
Claim Term/Phrase	Relevant Asserted Claims	The Court’s Construction
“mounting clamp”	15, 16, 20, 35	No construction required
“mounting adaptor”	15, 16, 20, 35	“Generally rectangular shaped bodies having first and second areas and that interfaces with the mounting clamp,

		and a cross member respectively.”
“first and second mounting adaptor portions; i.e., a first mounting adaptor portion and a second mounting adaptor portion”	15, 16, 20	“The mounting adaptors each have a first distinct area separated from a second distinct area of the body.”
“cross member”	15, 16, 20, 35	“A panel with a channel adapted to receive a roofing material and having a rear portion with an outwardly extending multi-surfaced protrusion designed to mate with corresponding substantially inverse surfaces of the second portion of the mounting adaptor.”
“first and second means for detachably interconnecting said cross member with said second adaptor portion of said first and second mounting adaptors, respectively”	15, 16, 20	“First and second surfaces of the second portion of each mounting adaptor that interface with substantially inverse surfaces of the cross member protrusion.”
“means for limiting relative movement between each of said first and second mounting adaptors and said cross member to a direction that is parallel with a longitudinal extent	20	“Partially affixing the first portion of the mounting adaptor to the mounting clamp such that the cross member can only move in a longitudinal direction, while the second portion of the mounting adaptor is engaged with the protrusion of the cross member.”

of said cross member”		
“mounting surface”	35	No construction required
“interconnecting a cross member with a mounting surface”	35	“Sliding a mounting adaptor onto and along the length of a cross member in a direction parallel to the longitudinal axis of the cross member, wherein the first channel portion of the cross member is closely mated with the beaded portion of the mounting adaptor, and the lip of the alignment portion of the mounting adaptor is received by the channel of the cross member in a closely fitting relationship, so that the cross member resists movement relative to the mounting adaptor in all other directions, and a fastener secures the mounting adaptor to the mounting clamp.”
“positioning first and second mounting adaptors on said cross member”	35	“Sliding first and second mounting adaptors onto and along said cross member in a direction parallel to the longitudinal axis of the cross member to position the mounting adaptors on the cross member.”

DATED: October 2, 2017

BY THE COURT:



 CHRISTINE M. ARGUELLO
 United States District Judge