

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

VOLTERRA SEMICONDUCTOR LLC,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Civil Action No. 19-2240-CFC-SRF
	)	
MONOLITHIC POWER SYSTEMS, INC.,	)	
	)	
Defendant.	)	

**MEMORANDUM OPINION**

**I. INTRODUCTION**

Presently before the court in this patent infringement action are three pending motions: (1) plaintiff Volterra Semiconductor LLC’s (“Volterra”) motion for leave to serve amended infringement contentions (D.I. 164); (2) defendant Monolithic Power Systems, Inc.’s (“Monolithic”) motion for leave to file a sur-reply brief in opposition to Volterra’s motion for leave to amend (D.I. 190); and (3) Monolithic’s motion for leave to serve amended invalidity contentions (D.I. 239).<sup>1</sup> For the following reasons, Volterra’s motion for leave to serve amended infringement contentions is GRANTED, Monolithic’s motion for leave to file a sur-reply brief is DENIED, and Monolithic’s motion for leave to serve amended invalidity contentions is GRANTED.<sup>2</sup>

**II. BACKGROUND**

Volterra is a developer of low-voltage power delivery solutions. (D.I. 71 at ¶ 13) Monolithic is a provider of electronics, including DC-to-DC power converters. (*Id.* at ¶ 6) On

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<sup>1</sup> The briefing and declarations associated with the pending motions are found at D.I. 165, D.I. 166, D.I. 177, D.I. 178, D.I. 180, D.I. 181, D.I. 200, D.I. 240, D.I. 248, D.I. 249, and D.I. 256.

<sup>2</sup> In a November 18, 2021 letter to the court, Volterra confirmed its withdrawal of its opposition to Monolithic’s motion for leave to serve amended invalidity contentions. (D.I. 267) The court grants Monolithic’s motion to amend on this basis and does not reach the merits of the motion.

December 9, 2019, Volterra brought this action for infringement of U.S. Patent Nos. 6,362,986 (“the ’986 patent”), 7,525,408 (“the ’408 patent”), and 7,772,955 (“the ’955 patent;” collectively, the “Asserted Patents”). (D.I. 1) In the complaint, Volterra accused Monolithic’s DC-to-DC power converters of infringing the Asserted Patents. (*Id.* at ¶ 18) In particular, Volterra identified as a “non-exhaustive example” the 48V-1V Power Solution for CPU, SoC or ASIC Controller (the “48V-1V”) that Monolithic demonstrated at the 2019 IEEE Applied Power Electronics Conference and Exposition (the “APEC 2019”). (*Id.*) The 48V-1V is a two-phase DC-to-DC power converter with coupled inductors. (D.I. 71 at ¶¶ 46(d), 78) The Asserted Patents are directed to DC-to-DC converters with coupled inductive windings and methods for making those windings. (D.I. 244 at 1) The ’986 patent has a March 22, 2001 priority date, and the ’955 and ’408 patents have a priority date of December 13, 2002. (D.I. 71, Exs. A-C)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

In June 2020, Monolithic objected to the breadth and lack of specificity of Volterra’s pleaded accusations against Monolithic’s entire DC-to-DC power converter line of products. (D.I. 37; D.I. 38) Volterra served written discovery requests and the second amended complaint

(“SAC”) in September 2020,<sup>3</sup> limiting the realm of accused products to the 48V-1V and other substantially similar products. (D.I. 166, Ex. C at 1, 4; D.I. 71 at ¶ 18) Volterra’s initial infringement contentions served on October 14, 2020 also defined the accused products as the 48V-1V and “any other substantially similar products.” (D.I. 166, Ex. B) In response to Volterra’s narrowed discovery requests, Monolithic identified only the 48V-1V as the Accused Product. (D.I. 166, Ex. D at 6)

On October 30, 2020, Monolithic produced a specification from [REDACTED], a coupled inductor manufacturer, that indicated the [REDACTED] product was [REDACTED] [REDACTED] (D.I. 166, Ex. E at MPS\_DE-00000917) Volterra highlighted this document in a December 17, 2020 letter to Monolithic, noting “[i]t . . . appears that [Monolithic] developed a Power Solution with Nvidia that utilizes coupled inductors in a substantially similar manner as the products demonstrated at APEC 2019. . . .” (D.I. 178, Ex. A) Monolithic responded on December 23, 2020, stating that the NVIDIA version of the 48V-1V (the “NVIDIA Power Solution”) was the only version of the Accused Product that was available to the public at that time, and no other versions of the Accused Product were available to Monolithic customers. (D.I. 166, Ex. A)

In its second set of discovery requests served in January 2021, Volterra specifically sought discovery on the NVIDIA Power Solution. (D.I. 166, Exs. H & I) A subsequent letter from Monolithic dated January 25, 2021 retracted Monolithic’s previous representation that certain technical documents produced in discovery were attributable to the NVIDIA Power

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<sup>3</sup> Monolithic moved to dismiss the SAC on October 9, 2020. (D.I. 83) On September 30, 2021, the District Judge entered a Memorandum Opinion and Order granting-in-part and denying-in-part the motion to dismiss. (D.I. 244; D.I. 245) Specifically, the Court granted the motion to dismiss with respect to the allegations of contributory infringement and denied the motion in all other respects. (D.I. 244 at 15)

Solution. (D.I. 166, Ex. J at 1) Monolithic also responded to Volterra's second set of discovery requests, indicating that it could not produce certain responsive documents until it first obtained the consent of various third parties. (D.I. 166, Ex. S at 8-9)

Monolithic produced technical documents and correspondence responsive to Volterra's second set of discovery requests between mid-April and mid-May 2021. (D.I. 166, Exs. M-O) On May 28, 2021, Volterra served its proposed amended infringement contentions on Monolithic. (D.I. 166, Ex. R) The amended infringement contentions discuss the NVIDIA Power Solution, relying on Bates-numbered technical documents and communications from the productions made in April and May 2021 to map the NVIDIA Power Solution to the claim elements of the Asserted Patents. (*Id.*)

Claim construction briefing concluded on June 21, 2021. (D.I. 168) Discovery closed on August 6, 2021. (D.I. 69 at ¶ 9(a)) Opening expert reports were exchanged on September 17, 2021, and rebuttal reports were exchanged on October 1, 2021. (D.I. 237; D.I. 246) A Markman hearing was held on November 12, 2021. (10/4/2021 Oral Order) Pursuant to the parties' joint stipulation, the deadline to file case dispositive motions was extended to November 19, 2021. (D.I. 251) The pretrial conference and trial dates set in the original scheduling order have been vacated pending resolution of dispositive motions. (10/13/2021 Oral Order)

### **III. LEGAL STANDARD**

The operative scheduling order in this case provides that "[a]mendment of the Infringement Contentions or the Invalidity Contentions may be made only by order of the Court upon a timely showing of good cause." (D.I. 69 at ¶ 7); *see British Telecommc'ns PLC v. IAC/InterActiveCorp*, C.A. No. 18-366-WCB, 2020 WL 3047989, at \*2 (D. Del. June 8, 2020). Good cause requires a showing of diligence both in discovering that amendment was necessary



The record before the court establishes that Volterra exercised diligence in seeking discovery on the NVIDIA Power Solution and in promptly amending its infringement contentions upon the discovery of nonpublic information about the NVIDIA Power Solution. Since September 2020, Volterra served discovery requests seeking to establish the identity of additional accused products and obtain evidence on products substantially similar to the accused 48V-1V. (D.I. 166, Ex. C at 1, 4; Exs. H & I) Nonetheless, Monolithic did not promptly identify the NVIDIA Power Solution in response to Volterra's requests,<sup>4</sup> and Monolithic's production of technical documents and communications regarding the NVIDIA Power Solution did not materialize until April and May 2021. (D.I. 166, Ex. D at 6; Exs. M-O) The production of these documents represents the kind of "recent discovery of nonpublic information about the Accused Instrumentality which was not discovered, despite diligent efforts, before the service of the Infringement Contentions" that is contemplated by the scheduling order. (D.I. 69 at ¶ 7) Volterra did not delay in seeking leave to amend its infringement contentions within weeks of receiving the documents. (D.I. 166, Ex. R)

Monolithic suggests that a document produced on October 30, 2020 provided Volterra with sufficient technical information to amend its contentions to include the NVIDIA Power Solution. (D.I. 177 at 16-17) This product specification of a [REDACTED] power inductor contains a single footnote suggesting that a DC current controlling surface temperature in the product is [REDACTED] (D.I. 178, Ex. J at MPS\_DE-00000917) Although the document put Volterra on notice that Monolithic developed a product

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<sup>4</sup> Without citing supporting documentation, Monolithic alleges that it expressly identified the NVIDIA Power Solution to Volterra in a September 21, 2020 meet and confer. (D.I. 177 at 7, 15-17) Despite this representation, Monolithic did not include the NVIDIA Power Solution in its interrogatory responses served on October 14, 2020, which sought the identification of products substantially similar to the 48V-1V. (D.I. 166, Ex. D at 5-6)

with NVIDIA using coupled inductors, (D.I. 178, Ex. B at 1), it did not provide the level of technical detail necessary for Volterra to satisfy its obligations under the scheduling order, which requires infringement contentions to be accompanied by “[a] chart identifying specifically where and how each limitation of each asserted claim is found within each Accused Instrumentality,” (D.I. 69 at ¶ 3(c)). Monolithic attempts to equate Volterra’s knowledge of the existence of the NVIDIA Power Solution with Volterra’s ability to provide detailed infringement contentions regarding the product, but the record shows that Volterra relied on the production from April and May 2021 to achieve the requisite level of technical detail in its contentions as demanded by Monolithic and described in the scheduling order. (D.I. 177 at 15-17 (challenging the lack of detail in Volterra’s initial infringement contentions); D.I. 178, Ex. R (string citing Bates ranges from the April-May 2021 productions)). The same is true of Monolithic’s arguments based on [REDACTED].<sup>5</sup> (D.I. 177 at 12-14)

Monolithic also contends that Volterra lacked diligence because it knew of the NVIDIA Power Solution as early as 2017, prior to the filing of the lawsuit. (D.I. 177 at 11) In support of this allegation, Monolithic cites to Maxim’s December 2017 response to NVIDIA’s request for information seeking a power solution proposal from Maxim including a coupled inductor. (*Id.*; see D.I. 178, Ex. C at NVIDIA\_0000113) But Monolithic fails to explain how Maxim’s 2017 coupled inductor proposal, which was rejected by NVIDIA, can form the technical basis of Volterra’s infringement contentions regarding Monolithic’s NVIDIA Power Solution, which has a Monolithic controller and a coupled inductor made by a third-party manufacturer.

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<sup>5</sup> Monolithic’s arguments regarding [REDACTED] are largely directed to case dispositive issues beyond the scope of the pending motion. (D.I. 177 at 13-14) The court declines to [REDACTED] and makes no findings as to [REDACTED]  
[REDACTED]  
[REDACTED].



Volterra's exercise of diligence both in discovering the need for an amendment and in moving to amend its infringement contentions supports a finding of good cause in this case. *See British Telecommc 'ns*, 2020 WL 3047989, at \*2.

## **2. Prejudice**

Volterra's proposed amendment of its infringement contentions would not result in the expenditure of significant additional resources, nor is it likely to significantly delay resolution of the case because briefing on case dispositive motions is not yet complete and the trial date was vacated. The record establishes that Monolithic has been on notice that the NVIDIA Power Solution was an accused product since at least September 2020. During the September 10, 2020 scheduling conference, counsel for Monolithic suggested that the case be limited to the 48V-1V and substantially similar products with a different name. (D.I. 166, Ex. Q at 14:11-18) Consistent with this discussion, Volterra's SAC accused products "substantially similar" to the 48V-1V of infringement. (D.I. 71 at ¶ 18) Monolithic admits that it disclosed the existence of the NVIDIA Power Solution and confirmed its new controllers were used in the NVIDIA Power Solution during a September 21, 2020 meet and confer. (D.I. 177 at 7, 15) And Monolithic's December 2020 letter to Volterra identified the NVIDIA Power Solution as a version of the 48V-1V. (D.I. 166, Ex. A)

Monolithic alleges that Volterra's delay deprives Monolithic of presenting claim construction issues that depend on Volterra's new infringement theories. (D.I. 177 at 17) But Monolithic does not describe how inclusion of the NVIDIA Power Solution would have changed the arguments it would have raised on claim construction, nor does it explain how infringement by the "substantially similar" NVIDIA Power Solution amounts to a new theory of infringement. The short shrift given to the prejudice factor in Monolithic's briefing confirms that "the degree



of potential prejudice is not so great as to make prejudice a dispositive factor in deciding the motion.” *British Telecommc’ns*, 2020 WL 3047989, at \*4.

Good cause exists to allow Volterra’s proposed amended infringement contentions because Volterra has demonstrated diligence and allegations of undue prejudice are not supported by the record. For these reasons, Volterra’s motion to amend its infringement contentions is granted.

#### **B. Motion for Leave to File Sur-Reply**

Monolithic’s motion for leave to file a sur-reply brief is denied. Local Rule 7.1.2(b) provides that parties may submit additional papers after the completion of briefing only with court approval, and courts in this district generally disfavor sur-replies. *See* D. Del. LR 7.1.2(b); *EMC Corp. v. Pure Storage, Inc.*, 154 F. Supp. 3d 81, 103 (D. Del. 2016). Accordingly, leave to file a sur-reply is granted only if it is necessary to respond to new evidence, facts, or arguments raised for the first time in the reply brief. *Novartis AG v. Actavis, Inc.*, 243 F. Supp. 3d 534, 540 (D. Del. 2017) (citing *St. Clair Intellectual Prop. Consultants, Inc. v. Samsung Elecs. Co.*, 291 F.R.D. 75, 80 (D. Del. 2013)).

Here, Volterra’s arguments in reply “involve content that is directly responsive to arguments made in [Monolithic’s] answering brief.” *Execware, LLC v. BJ’s Wholesale Club, Inc. et al.*, C.A. No. 14-233-LPS-CJB *et al.*, 2015 WL 4275314, at \*2 n.3 (D. Del. July 15, 2015), *reversed in part on other grounds by* 2015 WL 5734434 (D. Del. Sept. 30, 2015)). Specifically, Monolithic’s answering brief addresses NVIDIA’s request for information and Maxim’s [REDACTED], and it attaches the associated documents as exhibits to the brief. (D.I. 177 at 11-14; D.I. 178, Exs. C, D) Volterra was within its rights to respond to these arguments in its reply brief. *See Siemens Med. Sols. USA, Inc. v. Humedica, Inc.*, C.A. No.

14-880-LPS-CJB, 2015 WL 1738186, at \*1 n.1 (D. Del. Apr. 8, 2015) (denying motion for leave to file sur-reply where “complained-of material was responsive to theories and arguments raised in [defendant’s] answering brief”); *Kabbaj v. Simpson*, C.A. No. 12-1322-RGA-MPT, 2013 WL 867751, at \*6 (D. Del. Mar. 7, 2013) (“Generally, courts grant leave for sur-reply briefing when a party raises new arguments in its reply brief . . . [that] are beyond responding to the answering brief.”). Consequently, Monolithic’s motion for leave to file a sur-reply brief is denied.


## V. CONCLUSION

For the foregoing reasons, Volterra’s motion for leave to serve amended infringement contentions is GRANTED (D.I. 164), Monolithic’s motion for leave to file a sur-reply brief is DENIED (D.I. 190), and Monolithic’s motion for leave to serve amended invalidity contentions is GRANTED (D.I. 239). An Order consistent with this Memorandum Opinion shall issue.

Given that the court has relied upon material that technically remains under seal, the court is releasing this Memorandum Opinion under seal, pending review by the parties. In the unlikely event that the parties believe that certain material in this Memorandum Opinion should be redacted, the parties shall jointly submit a proposed redacted version by no later than **December 6, 2021**, for review by the court, along with a motion supported by a declaration that includes a clear, factually detailed explanation as to why disclosure of any proposed redacted material would “work a clearly defined and serious injury to the party seeking closure.” *See In re Avandia Mktg., Sales Practices & Prods. Liab. Litig.*, 924 F.3d 662, 672 (3d Cir. 2019) (quoting *Miller v. Ind. Hosp.*, 16 F.3d 549, 551 (3d Cir. 1994) (internal quotation marks omitted)). If the parties do not file a proposed redacted version and corresponding motion, or if the court determines the motion lacks a meritorious basis, the documents will be unsealed within thirty (30) days of the date the Memorandum Opinion issued.

This Memorandum Opinion is filed pursuant to 28 U.S.C. § 636(b)(1)(A), Fed. R. Civ. P. 72(a), and D. Del. LR 72.1(a)(2). The parties may serve and file specific written objections within fourteen (14) days after being served with a copy of this Memorandum Opinion. Fed. R. Civ. P. 72(a). The objections and responses to the objections are limited to ten (10) pages each. The parties are directed to the court's Standing Order For Objections Filed Under Fed. R. Civ. P. 72, dated October 9, 2013, a copy of which is available on the court's website, [www.ded.uscourts.gov](http://www.ded.uscourts.gov).

Dated: November 30, 2021



Sherry R. Fallon  
UNITED STATES MAGISTRATE JUDGE