

# Federal Circuit Patent Bulletin: *Vicor Corp. v. SynQor, Inc.*

September 6, 2017

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On August 30, 2017, in *Vicor Corp. v. SynQor, Inc.*, the U.S. Court of Appeals for the Federal Circuit (Lourie, Taranto, Chen\*) affirmed-in-part, vacated-in-part, and remanded the U.S. Patent and Trademark Office Patent Trial and Appeal Board inter partes reexamination decisions that certain claims of U.S. Patents No. 8,023,290 and No. 7,272,021, which related to DC-DC power conversion, were invalid for anticipation or obviousness, whereas other claims were not invalid. The Federal Circuit stated:

Obviousness "is a question of law based on underlying findings of fact." The factual analysis of an obviousness determination is framed by the factors set out in *Graham*: (1) "the scope and content of the prior art," (2) "differences between the prior art and the claims at issue," (3) "the level of ordinary skill in the pertinent art," and (4) "secondary considerations" such as "commercial success, long felt but unsolved needs," and "failure of others." Anticipation is a question of fact reviewed for substantial evidence.

The Board found that a person skilled in the art would not have been motivated to combine Steigerwald '090 and Cobos because of operating frequency incompatibilities between the references' circuits. Cobos states that its circuit must operate at frequencies lower than 1 MHz. Steigerwald '090 does not explicitly recite an operating frequency range. However, the Board relied on testimony by SynQor's expert, Dr. Schlecht, in finding that Steigerwald '090's circuit would be functionally constrained to operate at frequencies above 3.6 MHz. Dr. Schlecht's testimony was based in part on teachings in publications

## Authors

Lawrence M. Sung  
Partner  
202.719.4181  
lsung@wiley.law  
Neal Seth  
Partner  
202.719.4179  
nseth@wiley.law

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that antedated the '290's priority date. [W]e affirm the Board's decision not to adopt proposed rejections I–II.

The Board affirmed the examiner's decision to withdraw proposed rejections III–IV based solely on SynQor's proffered objective evidence of nonobviousness. The objective evidence consisted of evidence submitted to the jury in SynQor I, including evidence of commercial success of infringing products, long-felt need for an improved power architecture for large computer and telecommunications systems, failure of others to create an improved power architecture, and praise of SynQor's IBA solution. The Board held that the '290 patent's claims covered the same IBA design covered by the patents asserted in SynQor I and that there was a nexus between the objective evidence and the disputed claims of the '290 patent. The Board and the examiner made no assessment of Vicor's proposed combination of JP '446, Steigerwald '539, and Kassakian under the first three Graham factors.

The Board's decision on these proposed rejections was erroneous and must be vacated for two reasons. First, the Board improperly analyzed Vicor's obviousness arguments under only one of the four Graham factors when it looked exclusively at the objective evidence, without considering the remaining factors and the relative strength of the factors. Second, the Board reached inconsistent conclusions as to the evidentiary weight to be given to the secondary considerations evidence presented in the respective reexaminations of the '290 and '021 patents, without any explanation to justify such inconsistency. [W]e vacate the Board's decision on these proposed rejections and remand for further proceedings consistent with this opinion.

In the '290's reexamination, the Board held that it would not have been obvious to use Pressman's switching regulators for Steigerwald's regulation stage. Yet on the same day, the Board reached the opposite conclusion on this issue in the '021's reexamination on essentially the same record. Because the Board did not provide any reasoned explanation for the inconsistent result across the two reexaminations, we vacate and remand the Board's decision on proposed rejections V–VI in the '290's reexamination and rejections III–IV in the '021's reexamination.

In declining to adopt proposed rejections V–VI in the '290's reexamination, the Board relied on disclosures in Steigerwald and testimony by Dr. Robert Steigerwald, sole inventor of the Steigerwald patents, to hold that a skilled artisan would not have been motivated to combine Pressman's switching regulators with Steigerwald because Steigerwald was "principally directed to pulsed loads." A "load" is a circuit component that consumes power supplied by a DC-DC power converter. A "pulsed" load is simply a load that requires intermittent pulses of power rather than a constant level of power. The Board adopted SynQor's position that a skilled artisan would not have been motivated to alter Steigerwald to include switching regulators because a switching regulator on Steigerwald's pulsed load wire would have introduced inductance on the wire and, as a result, would have inhibited delivery of pulsed power.

In the '021's reexamination, however, the Board held that a skilled artisan would have been motivated to incorporate Pressman's switching regulators into Steigerwald because "[t]he express teaching in Pressman of enhanced efficiency, in [the Board's] view, outweigh[ed] the undesirability of additional inductance, when considered in view of the Steigerwald alternative embodiment." We find that the direct conflict between the Board's fact findings in the reexaminations before us is unsupported by any rational explanation in either of

the Board's decisions. "[A]n agency's [fact] finding may be supported by substantial evidence," yet "nonetheless reflect arbitrary and capricious action." Moreover, "this is not a case where a more reasoned explanation than that provided by the Board can be gleaned from the record." [O]ur opinion today should not be read to suggest agency error whenever an agency reaches inconsistent outcomes in similar, related cases. But given the circumstances here, we think the best course is to vacate and remand for further consideration. On remand, the Board must at least provide some reasoned basis for its opposite holdings, if it chooses to maintain those same, opposing results. . . .

Having addressed Vicor's appeal of the Board's decision in the '290's reexamination, we next turn to SynQor's appeal of the Board's decision in the '021's reexamination, in which the Board affirmed all of the rejections. SynQor raises two arguments challenging the Board's decision that Steigerwald anticipates certain claims of the '021 patent. First, SynQor argues that the Board improperly relied on a new—and erroneous—ground of rejection on rehearing. Second, SynQor argues that the Board erred by "failing to consider SynQor's argument that Steigerwald does not teach 'substantially uninterrupted' power flow in the alternative synchronous rectifier embodiment" due to timing of the synchronous rectifiers. Both arguments are unpersuasive, and we therefore affirm the Board's holding of anticipation by Steigerwald. . . .

The Board held that claims 23, 25, and 27–30 of the '021 patent, which include voltage-range limitations, would have been obvious because a skilled artisan "would have implemented those voltages as the result of routine design choice for a circuit for use in particular operating environments." SynQor argues that this decision was erroneous because Steigerwald teaches away from implementing its circuit in computer or telecommunications applications by requiring use of relatively small capacitors and larger voltages than those recited in the claims. . . . We agree with Vicor that the Board's decision on these claims is supported by the substantial evidence cited by Vicor. [W]e affirm the Board's decision on rejection II.