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The Precedent: Federal Circuit Vacates Claim Construction But Upholds PTAB's Determination of Obviousness and Motivation to Combine in HD Silicon Solutions

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In this edition of *The Precedent*, we outline the Federal Circuit's decision in *HD Silicon Solutions LLC v. Microchip Technology Inc.*

In *HD Silicon Solutions LLC*, the Federal Circuit addressed an appeal from the USPTO Patent Trial and Appeal Board's (the PTAB) final written decision, holding that certain patent claims were obvious and therefore unpatentable.

Issues

1. **Claim construction:** Did the PTAB misconstrue the term "tungsten"? Did the PTAB misuse extrinsic evidence in view of the intrinsic evidence and in accordance with the rules of claim construction?
2. **Obviousness in view of improper claim construction:** Despite the PTAB's misconstruction of the claim term at issue, was the error harmless and was the finding of obviousness improper?
3. **Motivation to combine:** Was the PTAB's finding of a motivation to combine the references supported by substantial evidence?

Holdings

1. **Claim construction (reversed):** The Federal Circuit held the PTAB's construction was improper and that the PTAB wrongfully gave greater weight to extrinsic evidence in conflict with explicit intrinsic evidence.
2. **Obviousness (affirmed):** The Federal Circuit determined the PTAB's claim construction was in error but held the error harmless, thereby affirming the finding of obviousness.
3. **Motivation to combine (affirmed):** The Federal Circuit does not make factual findings. On review, the Federal Circuit found the PTAB's findings to be supported and motivations to combine to be

well-reasoned.

Background and Reasoning

Microchip Technology, Inc. (Microchip) challenged the validity of U.S. Patent No. 6,774,033 (the '033 Patent) via petition, asserting that all 17 claims would have been obvious over U.S. Patent No. 5,847,463 to Trivedi (Trivedi). After the PTAB instituted the IPR (*inter partes* review), the parties asserted differing constructions of the term “comprising tungsten,” which is present in the '033 Patent's independent claims. Ultimately, the PTAB construed the term “comprising tungsten” to mean “any form of tungsten, including both elemental tungsten and tungsten *compounds*.” Based on this construction, the PTAB held that the '033 Patent would have been obvious in view of Trivedi alone or in combination with another reference. HD Silicon Solutions LLC (HDSS) appealed the PTAB's ruling to the Federal Circuit.

On appeal, HDSS argued that the PTAB's construction of the term “comprising tungsten” was incorrect and questioned the PTAB's motivation to combine, in reference to some of the dependent claims of the '033 Patent.

Regarding the PTAB's claim construction, the Federal Circuit determined that the PTAB's construction was improper. Looking first at the specific claim language, the Federal Circuit found it to be explicit—*i.e.*, the '033 Patent claims use explicit language to refer to a compound when a compound is intended but do not use such language when the elemental form is intended. Based on the explicit claim language, the Federal Circuit determined that a claim including “tungsten” without reference to any other compound therefore means “elemental tungsten.” The Federal Circuit found that this construction was further supported by the specification and the prosecution history. In so doing, the Federal Circuit noted, consistent with its prior precedent, that extrinsic evidence should not be “used to vary, contradict, expand or limit the claim language from how it is defined, even by implication, in the specification or file history.”

Despite the PTAB's improper claim construction, the Federal Circuit held the error was harmless. Even under the correct construction, the Federal Circuit concluded that the claims would have been obvious to person of ordinary skill in the art (POSITA) in view of Trivedi because Trivedi teaches both “a tungsten-silicide and an elemental tungsten layer.”

Regarding HDSS's argument that there was not substantial evidence to support the PTAB's motivation to combine finding, the Federal Circuit disagreed. HDSS asserted that the PTAB's findings were unsupported by substantial evidence on the basis that the PTAB “misinterpreted” Trivedi's teaching and because the PTAB “did not explain why a [POSITA] would combine Trivedi and the other references...” The Federal Circuit noted that the PTAB did address HDSS's original arguments and that the PTAB “provided thorough and well-reasoned explanations” as to why a POSITA would have combined the references at issue. In affirming the PTAB's ultimate finding of obviousness and motivations to combine, the Federal Circuit noted that “[a]n appellate court does not and should not reweigh evidence or make factual findings.”