

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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NITTO DENKO CORP.,  
Petitioner,

v.

HUTCHINSON TECHNOLOGY INCORPORATED,  
Patent Owner.

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Case IPR2018-00954  
Patent 7,342,750 B2

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Before SHEILA F. McSHANE, STACY B. MARGOLIES, and  
ALEX S. YAP, *Administrative Patent Judges*.

YAP, *Administrative Patent Judge*.

DECISION  
Institution of *Inter Partes* Review  
35 U.S.C. § 314(a)

## I. INTRODUCTION

Petitioner, Nitto Denko Corp., filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–6, 9–17, and 20–22 of U.S. Patent No. 7,342,750 B2 (Ex. 1001, “the ’750 patent”). Patent Owner, Hutchinson Technology Incorporated, filed a Preliminary Response (Paper 6, “Prelim. Resp.”).

Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted unless the information presented in the Petition shows “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” On April 24, 2018, the Supreme Court held that a decision to institute under 35 U.S.C. § 318(a) may not institute on fewer than all claims challenged in the petition. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1355 (2018). Taking into account the arguments presented in Patent Owner’s Preliminary Response, we determine that the information presented in the Petition establishes that there is a reasonable likelihood that Petitioner would prevail in showing the unpatentability of at least one challenged claim. We institute an *inter partes* review of all challenged claims (1–6, 9–17, and 20–22) of the ’750 patent, based on all grounds raised in the Petition.

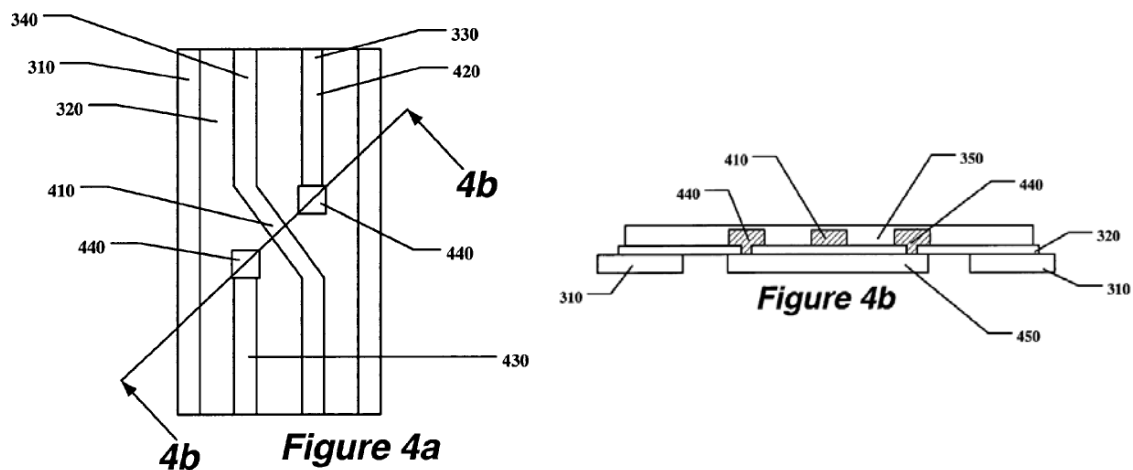
Our factual findings and conclusions at this stage of the proceeding are based on the evidentiary record developed thus far. This is not a final decision as to the patentability of claims for which an *inter partes* review is instituted. Our final decision will be based on the record as fully developed during trial.

A. *Related Matter*

The parties state that the '750 patent is the subject of a pending civil action, *Hutchinson Tech. Inc. v. Nitto Denko Corp.*, Case No. 17-cv-01992 (D. Minn.). Pet. 3; Paper 4, 2.

B. *The '750 Patent*

The '750 patent, titled "Method for Providing Electrical Crossover in a Laminated Structure," issued on March 11, 2008. Ex. 1001, [54], [45]. It issued from U.S. Patent Application No. 10/870,082, filed on June 16, 2004. *Id.* at [21], [22]. The disclosed invention generally relates to "fabricating a crossover structure on a laminated hard disk suspension." *Id.* at 1:7–10. Figures 4a and 4b of the '750 patent are reproduced below.



Figures 4a and 4b "provide an illustration of a laminated suspension with a crossover electrical trace." *Id.* at 3:15–17. Figure 4a shows the top view "of a laminated suspension using a crossover feature of the present invention," while Figure 4b illustrates a cross-sectional view of the same structure. *Id.*

at 3:51–53. The specification describes the embodiment illustrated in Figures 4a and 4b as follows:

[T]he laminated suspension has a support layer 310, an insulating layer 320, a first electrical trace 330, a second electrical trace 340 and an insulating covering coat 350. The second electrical trace 340 crosses over the first electrical trace 330 at a crossover point 410. The first electrical trace 330 may be discrete, or non-continuous, with a first part 420 and second part 430 of the first electrical trace 330 ending in contact points 440 on either side of the second electrical trace 340 at the crossover point 410. Underneath the crossover point 410, a conductive island area 450 is patterned into the support layer 310. The conductive island area 450 is electrically isolated from the rest of the support layer 310 by a gap and the second electrical trace 340 by the insulating layer 320. The conductive island area electrically connects the contact points 440 of the first electrical trace 330, allowing a signal to be sent from the first part 420 of the electrical trace 330 to the second part 430. The crossover points may help to reduce the signal cross talk between read traces and write traces.

Ex. 1001, 3:53–4:5.

### C. *Challenged Claims*

Petitioner requests an *inter partes* review of claims 1–6, 9–17, and 20–22 (“challenged claims”) of the ’750 patent. Pet. 5. Claims 1 and 12 are independent. Claims 2–6 and 9–11 depend directly or indirectly from claim 1 and claims 13–17 and 20–22 depend directly or indirectly from claim 12. Independent claims 1 and 12, reproduced below, are illustrative of the challenged claims.

1. A laminated suspension, comprising:
  - a support layer;
  - a non-continuous first trace electrically connecting a slider to a pre-amplifier;

a second trace electrically connecting the slider to the pre-amplifier,  
the second trace to cross over the non-continuous first trace at a first trace crossover point, and  
to remain electrically isolated from the non-continuous first trace; and  
an insulating layer isolating the non-continuous first trace and the second trace from the first support layer.

Ex. 1001, 5:5–15.

12. A hard disk drive, comprising:
  - a data storage disk;
  - a slider containing a magnetic read/write head to read and write data from the data storage disk;
  - a pre-amplifier to amplify a control signal to the slider and the magnetic read/write head; and
  - a laminated suspension, comprising:
    - a support layer;
    - a non-continuous first trace electrically connecting the slider to a pre-amplifier;
    - a second trace electrically connecting the slider to the pre-amplifier,  
the second trace to cross over the non-continuous first trace at a first trace crossover point,  
yet remaining electrically isolated from the non-continuous first trace; and
    - an insulating layer isolating the non-continuous first trace and the second trace from the first support layer.

Ex. 1001, 5:57–6:15.

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