

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KENNETH D. BRENNAN,
DOUGLAS A. PRINSLOW
and DAVID B. ALDRICH

Appeal No. 2006-0667
Application No. 09/953,310

ON BRIEF

Before THOMAS, HAIRSTON, and SAADAT, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 21 and 22.

The disclosed invention relates to an inductor for an integrated circuit that contains at least three metal levels connected together by a plurality of vias to form a toroidal coil.

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Claim 21 is the only independent claim on appeal, and it reads as follows:

21. An inductor for an integrated circuit containing at least three metal levels, comprising:

(a) a first plurality of conductive traces, said traces formed in a first metal level;

(b) a second plurality of conductive traces, said traces formed in a second metal level;

(c) a plurality of vias connecting said first plurality of traces with said second plurality of traces, said traces and vias forming a toroidal coil, wherein said vias extend through a third metal level, said third metal level between said first metal level and said second metal level.

The references relied on by the examiner are:

Burghartz et al. (Burghartz)	5,793,272	Aug. 11, 1998
Liou	6,037,649	Mar. 14, 2000

Claim 21 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Liou.

Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Liou in view of Burghartz.

Reference is made to the brief and the answer for the respective positions of the appellants and the examiner.

OPINION

We have carefully considered the entire record before us, and we will reverse the anticipation rejection of claim 21, and reverse the obviousness rejection of claim 22.

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A claim is anticipated under 35 U.S.C. § 102 "if each and every limitation is found either expressly or inherently in a single prior art reference." Bristol-Myers Squibb Co. v. Ben Venue Labs, Inc., 246 F.3d 1368, 1374, 58 USPQ2d 1508, 1512 (Fed. Cir. 2001).

Appellants argue (brief, page 3) that "Liou makes a linear coil (see Figs. 2A-3A) and not a toroidal coil as required by claim 21." The examiner contends (answer, page 4) that "[b]ecause the vias form a closed loop between first and second level vias, a toroidal shape between turns is created."

Liou is completely silent as to a teaching that the first, second and third metal lines 22, 25 and 28, respectively, form a toroidal coil. In view of the fact that the connections between the three metal lines are made to extend the three-dimensional inductor only along the direction of the magnetic field until the (N+1)th turn coil is created (Figure 2A; column 1, lines 10 through 12; column 4, lines 10 through 15), we agree with the appellants' argument that Liou makes a linear coil, as opposed to a toroidal coil. Thus, the anticipation rejection of claim 21 is reversed because Liou does not disclose "each and every limitation" of claim 21.

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The obviousness rejection of claim 22 is reversed because Burghartz fails to cure the noted shortcoming in the teachings of Liou.

DECISION

The decision of the examiner rejecting claim 21 under 35 U.S.C. § 102(b) is reversed, and the decision of the examiner rejecting claim 22 under 35 U.S.C. § 103(a) is reversed.

REVERSED

JAMES D. THOMAS)	
Administrative Patent Judge)	
)	
)	
KENNETH W. HAIRSTON)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS
)	AND INTERFERENCES
)	
)	
)	
MAHSHID D. SAADAT)	
Administrative Patent Judge)	

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