

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DEEPAK MAHULIKAR, PAUL R. HOFFMAN
and JEFFREY S. BRADEN

Appeal No. 1996-0060
Application No. 08/033,596¹

ON BRIEF

Before HAIRSTON, LALL and GROSS, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through 13 and 15 through 36. In an Amendment After Final (paper number 15), claims 1, 21, 23, 25, 28 through 30, 32, 34 and 35 were amended, and claims 20, 22, 27, 31 and 33 were canceled.

¹ Application for patent filed March 19, 1993.

Accordingly, claims 1 through 13, 15 through 19, 21, 23 through 26, 28 through 30, 32 and 34 through 36² remain before us on appeal.

The disclosed invention relates to an electronic package.

Claims 1 and 25 are illustrative of the claimed invention, and they read as follows:

1. An electronic package, comprising:

a metallic base having interior and exterior surfaces;

a plurality of electrically conductive vias extending through said metallic base and terminating approximately at said exterior surface, said electrically conductive vias adapted to receive a first electrically conductive means selected from the group consisting of solders, conductive polymers and conductive sealing glasses adjacent said exterior surface;

a second electrically conductive means selected from the group consisting of thick films, thin films, internal circuit boards, wire bonds and metallic foils interconnecting said electrically conductive vias to an electronic device mounted on said metallic base; and

a cover bonded to said metallic base with said electronic device disposed therebetween.

25. An electronic package, comprising:

² It is noted that claim 36 still depends from canceled claim 31.

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a metallic base having interior and exterior surfaces and an array of through holes, a dielectric layer coating at least a portion of said metallic base;

a plurality of metallic terminal pins extending through said holes and terminating approximately at said exterior surface, at least a portion of said metallic terminal pins electrically isolated from said metallic base, said metallic terminal pins adapted to receive solder on the end adjacent said exterior surface;

a means for electrically interconnecting said metallic terminal pins to an electronic device mounted on said metallic base, said electrically interconnecting means selected from the group consisting of thick films, thin films, internal circuit boards, wire bonds and metallic foils; and

a cover bonded to said metallic base with said electronic device disposed therebetween.

The references relied on by the examiner are:

McShane et al. (McShane)	5,006,922	Apr.
9, 1991		
Shindo	0 272 390	June 29, 1988
(European Patent Application)		
Yamamoto et al. (Yamamoto) ³	4-33357	Feb. 4, 1992
(Japanese Patent Application)		

Claims 1, 2 and 9 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Shindo.

³ A copy of the translation for this reference is attached.

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Claims 3 through 8, 10 through 13, 15 through 19, 21, 23 through 26, 28 and 29 stand rejected under 35 U.S.C. § 103 as being unpatentable over Shindo.

Claims 30, 32 and 34 through 36 stand rejected under 35 U.S.C. § 103 as being unpatentable over Shindo in view of McShane and Yamamoto.

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

OPINION

The 35 U.S.C. § 102(b) rejection of claims 1, 2 and 9 is sustained as to claims 1 and 2, and is reversed as to claim 9. The obviousness rejection of claims 3 through 13, 15 through 19, 21, 23 through 26, 28 through 30, 32 and 34 through 36 is reversed.

Appellants argue throughout the briefs that the metallic terminal pins in the applied references do not terminate "approximately at said exterior surface" of a metallic base (claims 25 through 29) or of a metallic cover (claims 30, 32 and 34 through 36) of an electronic package. With respect to claims 1 and 2, appellants argue (Brief, page 9) that "[t]here

is nothing in Shindo that anticipates terminal pins that terminate at the exterior surface of the base."

Appellants' arguments to the contrary notwithstanding, there is nothing in claims 1 and 2 that requires the termination of terminal pins "approximately at said exterior surface" of the metallic base. In fact, terminal pins are not recited in claims 1 and 2. Claims 1 and 2 only require that the conductive vias⁴ terminate "approximately at said exterior surface." The vias 1b in Shindo do exactly that. Thus, in the absence of other arguments by appellants, we will sustain the 35 U.S.C. § 102(b) rejection of claims 1 and 2.

Turning next to the obviousness rejection of claim 3, and the claims that depend therefrom, appellants argue (Brief, page 13) that the base 1 in Shindo is made from iron or a ferrometal, and that "[t]here is nothing in Shindo to teach or suggest forming the base from copper, aluminum or alloys thereof." We agree with appellants' argument. A mere statement by the examiner (Answer, page 3) that such materials

⁴ According to the McGraw-Hill Electronics Dictionary, a "via" is nothing more than a through-hole in a layer of material. A copy of the dictionary definition is attached.

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are "very well known in the art" cannot take the place of evidence or a convincing line of reasoning by the examiner that demonstrates that such a conclusion is correct. In short, the obviousness rejection of claims 3 through 8, 10 through 13, 15 through 19, 21, 23 and 24 is reversed because the examiner has not made a prima facie showing of obviousness.

Based upon the foregoing reversal of the 35 U.S.C. § 103 rejection of claim 4, it follows that the 35 U.S.C. § 102(b) rejection of claim 9 must be reversed because claim 9 depends from claim 4 (Brief, page 10).

As indicated supra, appellants argue that none of the terminal pins in the applied references terminate "approximately at said exterior surface" of a metallic base/cover. We agree. The terminal pins 3 in Shindo, the terminal pins 20 in McShane and the terminals pins 10 in Yamamoto all terminate well beyond the "exterior surface" of any base or cover. The broadness of the claim language notwithstanding (Answer, page 6), the applied references neither teach nor would they have suggested to one of ordinary skill in the art to terminate the terminal pins at the claimed

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location. In summary, the obviousness rejection of claims 25, 26, 28 through 30, 32 and 34 through 36 is reversed.

DECISION

The decision of the examiner rejecting claims 1 and 2 under 35 U.S.C. § 102(b) is affirmed. All of the other rejections are reversed. The decision of the examiner is, therefore, affirmed-in-part.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

KENNETH W. HAIRSTON)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
PARSHOTAM S. LALL)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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)	
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