

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

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte PETER A. FRANKLIN, ARTHUR G. MERRYMAN,
RAJESH S. PATEL, and THOMAS A. WASSICK

Appeal No. 2000-2143
Application No. 08/743,405

ON BRIEF

Before NASE, CRAWFORD, and BAHR, Administrative Patent Judges.
CRAWFORD, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 to 5 and claims 16 to 20, which are all of the claims pending in this application. Claims 6 to 15 have been canceled.

The appellants' invention relates to a multilayer thin film (MLTF) structure containing electronic packages such as multi-chip modules (specification, p. 1). A copy of the claims under appeal is set forth in the appendix to the appellants' brief.

The prior art

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Bhatia et al. (Bhatia)	5,243,140	Sep. 7, 1993
Mohsen	5,371,390	Dec. 6, 1994

The rejections

Claims 1 to 5 stand rejected under 35 U.S.C. § 102(b) as anticipated by or in the alternative under 35 U.S.C. § 103 as obvious over Bhatia.

Claims 1 to 5 and 16 to 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Mohsen in view of Bhatia.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the answer (Paper No. 20) for the examiner's complete reasoning in support of the rejections, and to the brief (Paper No. 19) for the appellants' arguments thereagainst.

Opinion

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

We turn first to the examiner's rejection of claims 1 to 5 and 16 to 20 as anticipated under 35 U.S.C. § 102 by or in the alternative under 35 U.S.C. § 103 as being obvious over Bhatia. In support of the rejection, the examiner states:

Bhatia discloses a multi layer wiring system having all of the features claimed: see FIGS 1-6. It is arguable that Bhatia does not disclose either metal strip repair lines are defined by testing or metal strip repair lines are formed by lithography. However, presence of process limitations in product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to that product. [answer at page 4]

Appellants argue that Bhatia includes fixed metallurgy on the surface which consists of connection pads, signal pads, conductors and etc. and that the phrase "consisting essentially of" in the claims excludes such metallurgy. We agree.

Appellants' claim 1 recites that the top surface layer of the multilayer thin film structure consists essentially of vias, chip connection pads, via-pad connection straps, a plurality of orthogonal X conductor lines and Y conductor lines and defined metal strap repair lines thereon.

The phrase "consisting essentially of" in a claim leaves the claim open to only those elements which would not materially change the basic and novel characteristics of the invention. In re Garner, 412 F.2d 276, 279, 162 USPQ 221, 223 (CCPA 1969). The basic characteristic of appellants' invention, as described in the specification, is that the top surface includes only vias, chip connection pads, via-pad connection straps, a plurality of orthogonal X conductor lines and Y conductor lines and defined metal strap repair lines. Bhatia's top surface includes signal pads and a conductor between at least two direct distribution structures. As such, the top surface of Bhatia includes additional metallurgy not recited in the claims.

The examiner has argued that the appellants have a burden of establishing that the additional metallurgy in the Bhatia structure is excluded from the claims by the phrase "consisting essentially of." In our view, the appellants have satisfied their burden by showing that the claimed multilayer structure has a top surface which excludes the additional metallurgy disclosed in Bhatia. See In re De Lajarte, 337 F.2d 870, 873-74, 143 USPQ 256, 258 (CCPA 1964).

In view of the foregoing, we will not sustain the examiner's rejection of claim 1 and claims 2 through 5 dependent therefrom.

We turn next to the examiner's rejection of claims 1 to 5 and 16 to 20 as being unpatentable over Mohsen in view of Bhatia.

In support of this rejection, the examiner states:

Mohsen discloses an interconnect substrate having all of the features claimed except for the explicit disclosure of the pads being C4 chip connection pads and metal strip repair lines are defined by testing or metal strip repair lines are formed by lithography . . . However, as shown by Bhatia, the use of C4 pad is well known in the art and it would have been within the level of ordinary skill in the art to modify the Mohsen by employing any known pads including C4 pads as desired. Further, presence of process limitations in product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to that product. [answer at page 4]

Mohsen discloses that bonding pads are distributed in a regular pattern to make the bonding pads as general purpose as possible and as such, like Bhatia, Mohsen includes additional metallurgy on the surface of the top layer. Therefore, we will not sustain this rejection for the same reasons stated above for the first rejection.

The decision of the examiner is reversed.

REVERSED

JEFFREY V. NASE)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
MURRIEL E. CRAWFORD)	APPEALS
Administrative Patent Judge)	AND
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JENNIFER D. BAHR)	
Administrative Patent Judge)	

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