

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. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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**Ex parte** HARUHIKO MURATA, YUKIHIRO KIMURA,  
and MASASHI INAISHI

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Appeal No. 1999-2684  
Application No. 08/825,400

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ON BRIEF

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Before THOMAS, BARRETT, and DIXON, **Administrative Patent Judges**.  
DIXON, **Administrative Patent Judge**.

**DECISION ON APPEAL**

This is a decision on appeal from the examiner's final rejection of claims 1-4 and 12, which are all of the claims pending in this application.

We AFFIRM.

## BACKGROUND

Appellants' invention relates to a circuit board having solder bumps. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A circuit board comprising:
  - a substrate having a joining surface; and
  - a plurality of solder bumps disposed on said joining surface of said substrate in such a manner as to form a predetermined profiled line or surface pattern;
  - wherein said solder bumps have tops which are free, flat and leveled.

The prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Degani	5,564,617	Oct. 15, 1996 (filed June 7, 1995)
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Claims 1 and 12 stand rejected under 35 U.S.C. § 102 as being unpatentable over Degani. Claims 2-4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Degani.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellants regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 20, mailed May 12, 1999) for the examiner's reasoning in support of

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the rejections, and to appellants' brief (Paper No. 19, filed Mar. 29, 1999) for appellants' arguments thereagainst.

### OPINION

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

Appellants have indicated that claims 1-4 and 12 will stand or fall together at page 3 of the brief and have not provided separate argument to the patentability of claims 2-4 and 12. These claims are grouped with independent claim 1. (See 37 CFR 1.192(c)(7).) Furthermore, it is our conclusion that the evidence adduced by the Examiner is sufficient to establish a *prima facie* case of anticipation with respect to independent claims 1 and 12, therefore, we do not reach the issue of obviousness with respect to claims 2-4.

As pointed out by our reviewing court, we must first determine the scope of the claim. "[T]he name of the game is the claim." **In re Hiniker Co.**, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998). Appellants argue that Degani does not mention compensating for bent or curved circuit boards or the leveling feature of claim 1. (See brief at page 3.) We agree with appellants, but this argument is not persuasive

since we find no express limitations in the language of the article of manufacture of independent claim 1 to support these arguments. We note that the language of claim 1 includes alternative embodiments “a plurality of solder bumps disposed . . . to form a predetermined profiled line or surface pattern.” Clearly, the solder bumps in Degani are in “surface pattern;” therefore, we need not address the limitation of a “predetermined profile line.” Furthermore the language of claim 1 recites that the “solder bumps have tops which are free, flat and leveled.” Again, Degani shows that the solder bumps in Figures 3 and 5 are “free, flat and leveled,” as broadly recited.

Appellants argue that Degani does not mention that the top surface of the solder bumps are flat to assure a reliable connection. (See brief at page 3.) We agree with appellants that this is not disclosed, but this argument is not persuasive since we find no express limitation in the language of the article of manufacture of independent claim 1 to support this argument. Degani teaches flat tops in Figures 3 and 5.

Appellants argue that Degani does not disclose solder “bumps” or “balls” and that the solder paste of Degani cannot be considered solder bumps (balls). (See brief at page 3.) The examiner maintains that balls and bumps are not synonymous as appellants argue. (See answer at pages 4-5.) We agree with the examiner. The examiner provides definitions of “bump,” “lump” and “ball” on page 5 of the answer. We agree with the examiner’s definitions. Here, we find that a solder “bump” is not a solder “ball” and appellants have not identified any technical definition in the specification or

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technical definition within the relevant art. Therefore, we accept the examiner's ordinary meaning of the term.

Appellants argue that the terms bumps and balls are used interchangeably within the specification. (See brief at page 4.) We do not find this argument persuasive since the language of claim 1 recites bumps and a ball cannot be synonymous with the claimed bumps which are not round due to the flat, leveled tops. Therefore, appellants have not provided sufficient evidence to rebut the *prima facie* case of anticipation and we will sustain the examiner's rejection of independent claim 1. Furthermore, the rejections of claims 2-4 and 12 are similarly sustained since appellants have not provided separate arguments for patentability.

### **CONCLUSION**

To summarize, the decision of the examiner to reject claims 1 and 12 under 35 U.S.C. § 102 is affirmed, and the decision of the examiner to reject claims 2-4 under 35 U.S.C. § 103 is affirmed.

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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**

JAMES D. THOMAS	)	
Administrative Patent Judge	)	
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	)	
	)	
	)	
	)	BOARD OF PATENT
LEE E. BARRETT	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
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	)	
JOSEPH L. DIXON	)	
Administrative Patent Judge	)	

JD/RWK  
FOLEY & LARDNER

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3000 K STREET NW SUITE 500  
PO BOX 25696  
WASHINGTON, DC 20007-8696