

10-17-2000



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**PATENT**

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☐ Assignment ☒ Security Agreement

☐ License ☐ Change of Name

☐ Merger ☐ Other

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**Conveying Party(ies)**

☐ Mark if additional names of conveying parties attached

Execution Date  
Month Day Year  
April 28, 2000

**Second Party**

Execution Date  
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**Receiving Party**

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Name (line 1) Guardian Assets, Inc.

Name (line 2)

Address (line 1) Goshen Corporate Park

Address (line 2) 1345 Enterprise Drive

Address (line 3) West Chester PA / USA 19380

City State/Country Zip Code

**Domestic Representative Name and Address**

Enter for the first Receiving Party only.

Name Shearman & Sterling

Address (line 1) 599 Lexington Avenue

Address (line 2) New York, NY 10022

Address (line 3)

Address (line 4)

**FOR OFFICE USE ONLY**

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**PATENT**  
**REEL: 011122 FRAME: 0773**

## Correspondent Name and Address

Area Code and Telephone Number

212 848-4000

Name Antoinette E. Baker

Address (line 1) Sherman &amp; Sterling

Address (line 2) 599 Lexington Avenue

Address (line 3) New York, NY 10022

Address (line 4)

## Pages

Enter the total number of pages of the attached conveyance document  
including any attachments.

#

6

## Application Number(s) or Patent Number(s)

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Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

## Patent Application Number(s)

See attached

See attached

## Patent Number(s)

If this document is being filed together with a new Patent Application, enter the date the patent  
application was signed by the first named executing inventor.

Month Day Year

## Patent Cooperation Treaty (PCT)

Enter PCT application number  
only if a U.S. Application Number  
has not been assigned.

PCT

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## Number of Properties

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70

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Deposit Account

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Yes ☒No ☐

## Statement and Signature

To the best of my knowledge and belief, the foregoing information is true and correct and any  
attached copy is a true copy of the original document. Charges to deposit account are authorized, as  
indicated herein.

Antoinette E. Baker

Name of Person Signing

Signature

Date

**Patents Granted  
Amkor Technology, Inc.**

4/11/00

#	Patent Number	Filed	Issued	Title	Inventor(s)	Assignees		
						Amkor	Anam	Other
1	5,183,724	12/18/90	02/02/93	Method of producing a strip of lead frames for integrated circuit dies in a continuous system	Johnson	x		
2	5,269,210	9/23/91	12/14/93	Slitter machine for use in manufacturing semiconductor devices	Johnson	x		
3	5,305,043	8/27/92	04/19/94	Method of and apparatus for producing a strip of lead frames for integrated circuit dies in a continuous system	Johnson	x		
4	5,328,870	11/9/92	07/12/94	Method for forming plastic molded package with heat sink for integrated circuit devices	Marrs	x		
5	5,355,283	4/14/93	10/11/94	Ball grid array with via interconnection	Marrs Hirakawa	x		Teijin Limited
6	5,378,869	3/26/93	01/03/95	Method for forming an integrated circuit package with via interconnection	Marrs Hirakawa	x		Teijin Limited
7	5,381,042	4/19/94	01/10/95	Packaged integrated circuit including heat slug having an exposed surface	Lerner Razu	x		
8	5,455,462	11/15/93	10/03/95	Plastic molded package with heat sink for integrated circuit devices	Marrs	x		
9	5,478,007	5/11/94	12/26/95	Method for interconnection of integrated circuit chip and substrate	Marrs	x		
10	5,482,736	8/4/94	01/09/96	Method for applying flux to ball grid array package	Glenn Hollaway	x		
11	5,482,898	3/27/95	01/09/96	Method for forming a semiconductor device having a thermal dissipator and electromagnetic shielding	Marrs	x		
12	5,483,100	6/2/92	01/09/96	Integrated circuit package with via interconnections formed in a substrate	Marrs Tadashi	x		Teijin Limited
13	5,485,037	3/27/95	01/16/96	Semiconductor device having a thermal dissipator and electromagnetic shielding	Marrs	x		
14	5,582,772	6/7/95	12/10/96	Copper oxide-filled polymer die attach adhesive composition for semiconductor package	Kwak	x	x	
15	5,583,378	5/16/94	12/10/96	Ball grid array integrated circuit package with thermal conductor	Marrs Molnar	x		
16	5,596,485	3/16/95	01/21/97	Plastic packaged integrated circuit with heat spreader	Glenn Hollaway	x		
17	5,629,561	12/12/95	05/13/97	Semiconductor package with integral heat dissipator	Shin Do	x	x	
18	5,635,671	3/16/94	06/03/97	Mold runner removal from a substrate-based packaged electronic device	Freyman Briar Heo Shim	x	x	
19	5,637,273	10/11/96	06/10/97	Method for molding of integrated circuit package	Goo	x	x	
20	5,641,946	1/18/96	06/24/97	Method and circuit board structure for leveling solder balls in ball grid array semiconductor packages	Shim	x	x	
21	5,641,987	6/7/95	06/24/97	Heat spreader suitable for use in semiconductor packages having different pad sizes	Lee	x	x	
22	5,650,593	2/6/95	07/22/97	Thermally enhanced chip carrier package	McMillan Maslakow Castro	x		
23	5,661,338	12/12/95	08/26/97	Chip mounting plate construction of lead frame for semiconductor package	Yoo Yoo Lee Park Han	x	x	
24	5,672,909	7/29/96	09/30/97	Interdigitated wirebond programmable fixed voltage planes	Glenn Molnar Hollaway	x		
25	5,701,034	5/3/94	12/23/97	Packaged semiconductor die including heat sink with locking feature	Marrs	x		

#	Patent Number	Filed	Issued	Title	Inventor(s)	Assignees		
						Amkor	Anam	Other
26	5,708,567	11/13/96	01/13/98	Ball grid array semiconductor package with ring-type heat sink	Shim Heo	x	x	

**Patents Granted  
Amkor Technology, Inc.**

4/11/00

27	5,712,570	9/19/95	01/27/98	Method for checking a wire bond of a semiconductor package	Heo Youm	x	x	
28	5,722,161	5/1/96	03/03/98	Method of making a packaged semiconductor die including heat sink with locking feature	Marrs	x		
29	5,723,899	8/29/95	03/03/98	Semiconductor lead frame having connection bar and guide rings	Shin	x	x	
30	5,729,432	1/18/96	03/17/98	Ball grid array semiconductor package with improved dissipation and dehumidification effect	Shim Heo	x	x	
31	5,740,956	12/12/95	04/21/98	Bonding method for semiconductor chips	Seo Jang	x	x	
32	5,760,498	8/6/96	06/02/98	Power drawing circuit for two-wire switching unit	Park		x	
33	5,767,446	10/24/96	06/16/98	Printed circuit board having epoxy barrier around a throughout slot and ball grid array semiconductor package	Ha Heo	x	x	
34	5,795,818	12/6/96	08/18/98	Integrated circuit chip to substrate interconnection and method	Marrs	x		
35	5,796,163	5/23/97	08/18/98	Solder ball joint	Glenn Hollaway Panczak	x		
36	5,807,768	9/4/96	09/15/98	Method For Fabricating a Heat Sink-Integrated Semiconductor Package	Shin	x	x	
37	5,827,999	11/14/94	10/27/98	Homogeneous Chip Carrier Package	McMillian Maslakow	x		
38	5,829,988	11/14/96	11/03/98	Socket Assembly for Integrated Circuit Chip Carrier Packager	McMillian Maslakow	x		
39	5,838,951	8/28/96	11/17/98	Wafer Map Conversion Method	Song	x	x	
40	5,854,741	5/17/96	12/29/98	Unit Printed Circuit Board Carrier Frame For Ball Grid Array Semiconductor Packages And Method For Fabricating Ball Grid Array Semiconductor Packages Using The Same	Shim, Heo	x	x	
41	5,866,939	12/31/96	02/02/99	Grid Array Type Lead Frame And Lead End Grid Array Semiconductor Package Employing The Same	Shin, Han, Yoon, Kwak Han	x	x	
42	5,858,149	11/14/96	01/12/99	Process For Bonding Semiconductor Chip	Seo, Song	x	x	
43	5,864,470	6/25/97	01/26/99	Flexible Circuit Board For Ball Grid Array Semiconductor Package	Shim, Young Darveaux	x	x	
44	5,854,511	11/14/96	12/29/98	Semiconductor Package Including Heat Sink With Layered Conductive Plate And Non-Conductive Tape Bonding To Leads	Shin, Lee	x	x	
45	5,852,870	4/24/96	12/29/98	Method of Making a Grid Array Assembly	Freyman, Maxcy, Brair	x		
46		4/24/96	01/12/99	Carrier Strip and Molded Flex Circuit Ball Grid Array	Freyman, Darveaux	x		
47	5,867,368	9/9/97	02/02/99	Mounting For A Semiconductor Integrated Circuit Device	Glenn,	x		
48	5,872,399	4/1/97	02/16/99	Solder Ball Land Metal Structure of Ball Grid Semiconductor Package	Lee	x	x	
49	5,858,815	12/11/96	01/12/99	Semiconductor Package and Method for Fabricating the Same	Heo, Han	x	x	
50	5,894,008	10/16/97	04/13/99	A Method for Manufacturing an Alumina-Silicon Carbide Nanocomposite	Na	x	x	

**Patents Granted  
Amkor Technology, Inc.**

4/11/00

#	Patent Number	Filed	Issued	Title	Inventor(s)	Amkor	Anam	Other
51	5,897,334	10/15/97	04/27/99	Method for Reproducing Printed Circuit Boards For Semiconductor Packages Including Poor Quality Printed Circuit Board Units and Methods for Fabricating Semiconductor Packages Using the Reproduced Printed Circuit Boards	Ha, Heo, Han	x	x	
52	5,905,633	12/31/96	05/18/99	Method of Producing BGA Semiconductor Packages Using Metal Carrier Frame & BGA Produced by Such Method	Shim, Heo	x	x	
53	5,908,317	3/7/97	06/01/99	Method of Forming Chip Bump Chip Scale Semiconductor Package, Such Package and Chip Bump	Heo	x	x	
54	5,915,169	12/23/96	06/22/99	Semiconductor Chip Scale Package and Method of Producing Such	Heo	x	x	
55	5,939,784	9/9/97	08/17/99	Standing Acoustical Wave Package	Glenn	x		
56	5,950,074	5/26/98	09/07/99	Method of Making An Integrated Circuit Package	Panczak, Glenn			
57	5,949,655	7/17/98	09/07/99	Mounting Having An Aperture Cover With Adhesive Locking Features For Flip Chip	Glenn			
58	5,953,589	8/20/97	09/14/99	Ball Grid Array Semiconductor Package With Solder Balls Fused On Printed Circuit Board	Shim, Darveaux, Glenn	x	x	
59	5,962,810	9/9/97	10/05/99	Integrated circuit package employing a transparent encapsulant and a method of making the package	Glenn	x		
60	5,971,734	9/19/97	10/26/99	Mold for ball grid array semiconductor	YY Moon	x	x	
61	5,977,624	1/16/98	11/02/99	Semiconductor Package and Assembly for Fabricating the Same	YW Heo BJ Han	x	x	
62	5,981,314	10/31/96	11/09/99	Near Chip Size Integrated Circuit Package	Glenn, Panczak Hollaway	x		
63	5,981,873	5/24/99	11/09/99	Printed circuit board for ball grid array semiconductor package and method for molding ball grid array semiconductor package using the same	YW Heo	x	x	
64	5,985,695	8/28/98	11/16/99	Method of making a molded flex circuit ball grid array	Freyman, Darveaux	x		
65	5,986,334	10/2/97	11/17/99	Semiconductor Package having light, thin, simple, and compact structure	SG Lee	x	x	
66	6,013,554	12/30/98	01/11/00	Method for fabricating an LDD MOS transistor	Park	x	x	
67	6,020,218	1/26/98	02/01/00	Method of manufacturing ball grid array semiconductor package	Shim, Ha	x	x	
68	6,021,563	6/25/97	02/08/00	Method for marking poor quality printed circuit board units of printed circuit board strip for semiconductor package	Shim, Heo	x	x	
69	6,028,354	10/14/97	02/22/00	A microelectronic device package having a heat sink structure for increasing the thermal conductivity of the package	Hoffman	x		
70	6,034,429	4/18/97	03/07/00	Method of Making an Integrated Circuit Package	Glenn, Panczak Hollaway	x		

Schedule of US & foreign  
patent applications missing  
trademarks on last page are repeats

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## INTELLECTUAL PROPERTY SECURITY AGREEMENT

This INTELLECTUAL PROPERTY SECURITY AGREEMENT (as amended, amended and restated, supplemented or otherwise modified from time to time, the "*IP Security Agreement*") dated April 28, 2000, is made by the Persons listed on the signature pages hereof (collectively, the "*Grantors*") in favor of Société Générale ("*SG*"), as collateral agent (the "*Collateral Agent*") for the Secured Parties (as defined in the Credit Agreement referred to below).

WHEREAS, Amkor Technology, Inc. (the "*Borrower*"), a Delaware corporation, has entered into a Credit Agreement dated as of April 28, 2000 (as amended, amended and restated, supplemented or otherwise modified from time to time, the "*Credit Agreement*"; terms defined therein, unless otherwise defined herein, being used herein as therein defined) among the Borrower, certain Lender Parties party thereto, Salomon Smith Barney Inc. ("*SSBI*") as Book Manager, SG, as Administrative Agent and as Collateral Agent, SSBI, SG Cowen Securities Corporation ("*SG Cowen*") and Deutsche Bank Securities Inc., as Arrangers, SSBI and SG as Syndication Agents, and (ii) the Security Agreement dated as of April 28, 2000 (as amended, amended and restated, supplemented or otherwise modified from time to time, the "*Security Agreement*"; terms defined therein, unless otherwise defined herein, being used herein as therein defined) made by the Grantors from time to time party thereto in favor of the Collateral Agent for the Secured Parties.

WHEREAS, as a condition precedent to the making of Advances and the issuance of Letters of Credit by the Lender Parties under the Credit Agreement from time to time, each Grantor has executed and delivered that certain Security Agreement dated April 28, 2000 made by the Grantors to the Collateral Agent (as amended, amended and restated, supplemented or otherwise modified from time to time, the "*Security Agreement*").

WHEREAS, under the terms of the Security Agreement, Grantors have granted a security interest in, among other property, certain intellectual property of the Grantors to the Collateral Agent for the ratable benefit of the Secured Parties, and have agreed as a condition thereof to execute this IP Security Agreement covering such intellectual property for recording with the U.S. Patent and Trademark Office, the United States Copyright Office and other governmental authorities.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Grantor agrees as follows:

SECTION 1. Grant of Security. Each Grantor hereby grants to the Collateral Agent for the ratable benefit of the Secured Parties a security interest in and to all of such Grantor's right, title and interest in and to the following (the "*Collateral*"):

(i) the United States, international, and foreign patents, patent applications and patent licenses set forth in Schedule A hereto (as such Schedule A may be supplemented from time to time by supplements to the Security Agreement and this IP Security Agreement, each such supplement being in substantially the form of Exhibit G to the Security Agreement (an "*IP Security Agreement Supplement*"), executed and delivered by such Grantor to the Collateral Agent from time to time), together with all reissues, divisions, continuations, continuations-in-part, extensions and reexaminations thereof, and all rights therein provided by international treaties or conventions (the "*Patents*");

Amkor Intellectual Property Security Agreement  
NYDOCS03/523330

Amkor Intellectual Property Security Agreement  
NYDOCS03/523330

(ii) the United States and foreign trademark and service mark registrations, applications, and licenses set forth in Schedule B hereto (as such Schedule B may be supplemented from time to time by IP Security Agreement Supplements executed and delivered by such Grantor to the Collateral Agent from time to time) (the "**Trademarks**");

(iii) the copyrights, United States and foreign copyright registrations and applications and copyright licenses set forth in Schedule C hereto (as such Schedule C may be supplemented from time to time by IP Security Agreement Supplements executed and delivered by such Grantor to the Collateral Agent from time to time) (the "**Copyrights**");

(iv) any and all claims for damages for past, present and future infringement, misappropriation or breach with respect to the Patents, Trademarks and Copyrights, with the right, but not the obligation, to sue for and collect, or otherwise recover, such damages; and

(v) any and all proceeds of the foregoing.

Notwithstanding the foregoing, the term "Collateral" does not include any license or contract right to the extent that (i) the granting of a security interest therein would be contrary to applicable law or (ii) such license or contract right is not assignable according to its terms (but only to the extent any such prohibition is enforceable under applicable law, including, without limitation, Section 9-318(4) of the N.Y. Uniform Commercial Code).

Section 2. Security for Obligations. The grant of a security interest in, the Collateral by each Grantor under this IP Security Agreement secures the payment of all Obligations of such Grantor now or hereafter existing under or in respect of the Loan Documents, whether direct or indirect, absolute or contingent, and whether for principal, reimbursement obligations, interest, premiums, penalties, fees, indemnifications, contract causes of action, costs, expenses or otherwise.

SECTION 3. Recordation. Each Grantor authorizes and requests that the Register of Copyrights, the Commissioner of Patents and Trademarks and any other applicable government officer record this IP Security Agreement.

SECTION 4. Execution in Counterparts. This Agreement may be executed in any number of counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.

SECTION 5. Grants, Rights and Remedies. This IP Security Agreement has been entered into in conjunction with the provisions of the Security Agreement. Each Grantor does hereby acknowledge and confirm that the grant of the security interest hereunder to, and the rights and remedies of, the Collateral Agent with respect to the Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated herein by reference as if fully set forth herein.

SECTION 6. Governing Law. This IP Security Agreement shall be governed by, and construed in accordance with, the laws of the State of New York.

IN WITNESS WHEREOF, each Grantor has caused this Agreement to be duly executed and delivered by its officer thereunto duly authorized as of the date first above written.

AMKOR TECHNOLOGY, INC.

By Kenneth T. Joyce  
Name: Kenneth T. Joyce  
Title: Chief Financial Officer

Address for Notices:

Goshen Corporate Park  
1345 Enterprise Drive  
West Chester, PA 19380

GUARDIAN ASSETS, INC.

By Kenneth T. Joyce  
Name: Kenneth T. Joyce  
Title: Chief Financial Officer

Address for Notices:

Goshen Corporate Park  
1345 Enterprise Drive  
West Chester, PA 19380