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(12) **United States Design Patent** (10) **Patent No.: US D911,987 S**
Aoki et al. (45) **Date of Patent: ** Mar. 2, 2021**

(54) **SEMICONDUCTOR ELEMENT**

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(**) Term: **15 Years**

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(30) **Foreign Application Priority Data**

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(51) **LOC (13) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/182**

(58) **Field of Classification Search**
USPC D13/182; 257/678, 684, 690, 691; 361/679.01, 713, 728, 736, 760, 761, 772, 361/775, 783, 820; 174/250, 253; 438/15, 25, 26, 51, 55, 63, 64, 106
CPC . H01L 21/00; H01L 2224/42; H01L 2224/43; H01L 21/4814; H01L 21/4846; H01L 21/4871; H01L 21/67144; H01L 23/12; H01L 23/13; H01L 23/14; H01L 23/147; H01L 2924/171; H01L 2924/1711; H01L 2924/1715; H01L 2924/17151; H01L 2924/181; H01L 2924/1811; H01L 2924/1815; H01L 2924/19042; H01L 2924/1905; H01L 23/58; H01L 2224/08054; H05K 1/026; H05K 1/14; H05K 1/141; H05K 1/142; H05K 1/144; H05K 1/18; H05K 1/181; H05K 1/182; H05B 41/14; G02B 6/4256; G02B 6/4257; G02B 6/4261; G02B 6/4262; G02B 6/428; G02B 6/4281
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D317,592	S *	6/1991	Yoshizawa	D13/182
5,347,160	A *	9/1994	Sutrina	H01L 24/72 257/678
D401,567	S *	11/1998	Farnworth	D13/182
D441,726	S *	5/2001	Sofue	D13/182
6,268,650	B1 *	7/2001	Kinsman	H01L 23/3107 257/678

(Continued)

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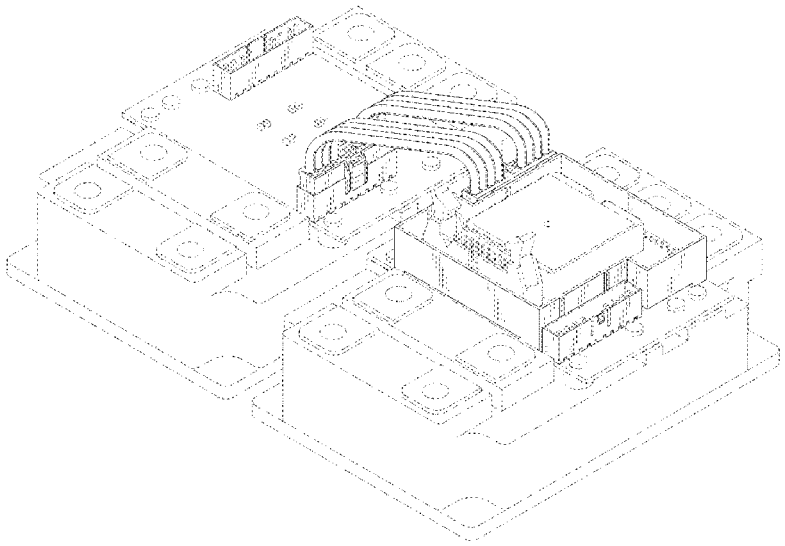
(57) **CLAIM**

The ornamental design for a semiconductor element, as shown and described.

DESCRIPTION

FIG. **1** is a perspective view of a semiconductor element showing our new design;
FIG. **2** is a front view of the semiconductor element of FIG. **1**;
FIG. **3** is a rear view of the semiconductor element of FIG. **1**;
FIG. **4** is a left side view of the semiconductor element of FIG. **1**;
FIG. **5** is a right side view of the semiconductor element of FIG. **1**;
FIG. **6** is a top view of the semiconductor element of FIG. **1**; and,
FIG. **7** is a bottom view of the semiconductor element of FIG. **1**.
The broken line portions of the semiconductor element in FIGS. **1-7** form no part of the claimed design.

1 Claim, 5 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

6,521,983	B1 *	2/2003	Yoshimatsu	H01L 25/072 257/678
6,774,465	B2 *	8/2004	Lee	H01L 23/049 257/671
D522,470	S *	6/2006	Mizukoshi	D13/182
D653,633	S *	2/2012	Soyano	D13/182
D653,634	S *	2/2012	Soyano	D13/182
D686,174	S *	7/2013	Soyano	D13/182
D748,595	S *	2/2016	Bertalan	D13/182
D766,851	S *	9/2016	Yoneyama	D13/182
D773,412	S *	12/2016	Yoneyama	D13/182
D774,479	S *	12/2016	Soyano	D13/182
D799,439	S *	10/2017	Hayashiguchi	D13/182
D864,884	S *	10/2019	Yoneyama	D13/182
2001/0038143	A1 *	11/2001	Sonobe	H01L 24/49 257/690
2002/0064901	A1 *	5/2002	Miyazaki	H01L 23/49827 438/106
2011/0044012	A1 *	2/2011	Matsumoto	H01R 4/04 361/728

* cited by examiner

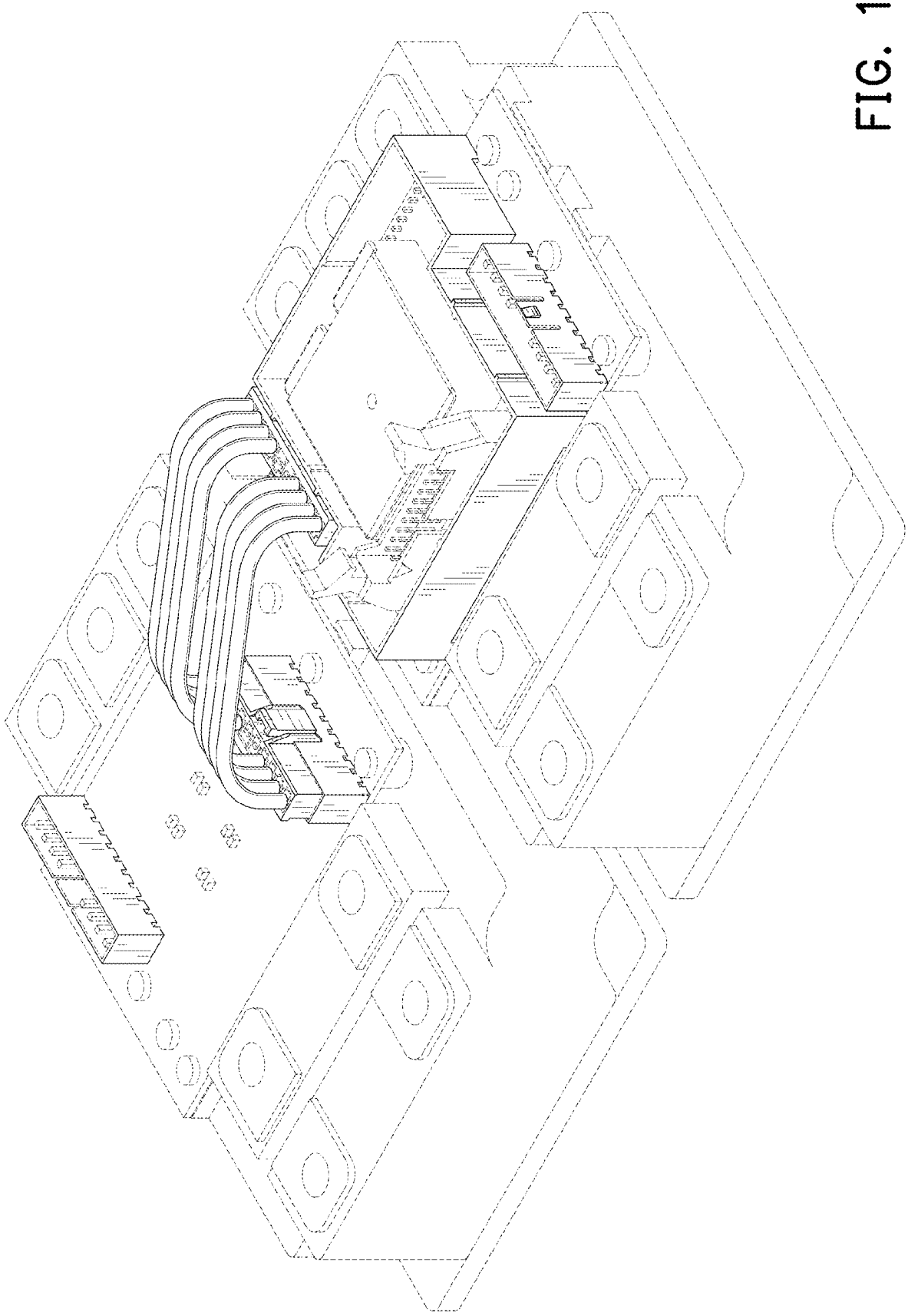


FIG. 1

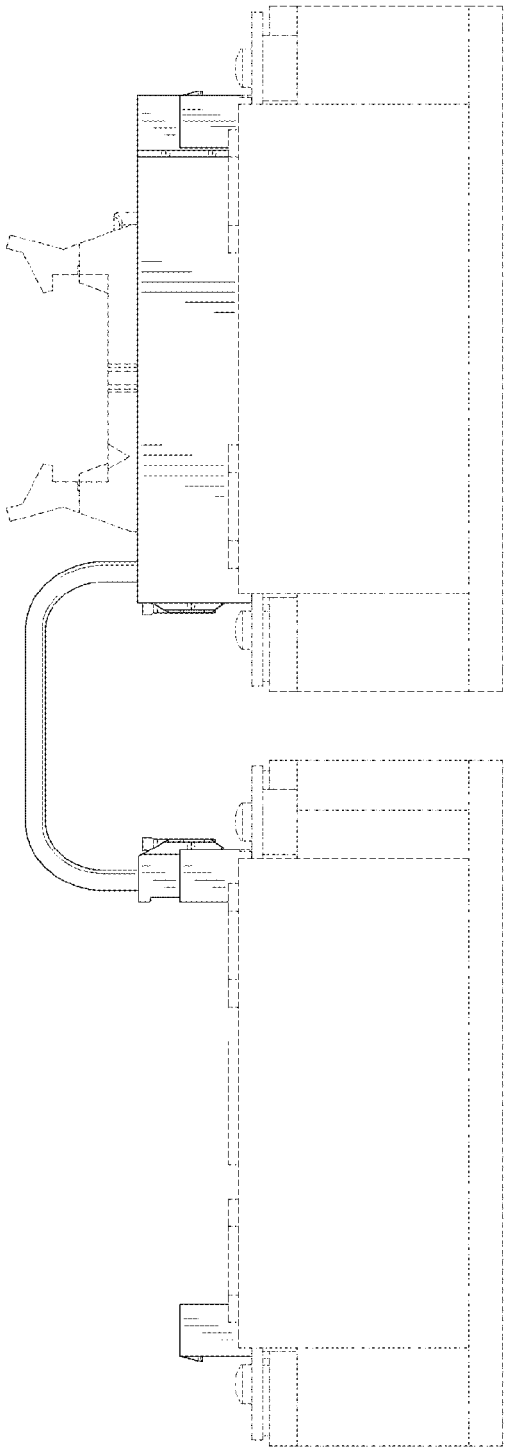


FIG. 2

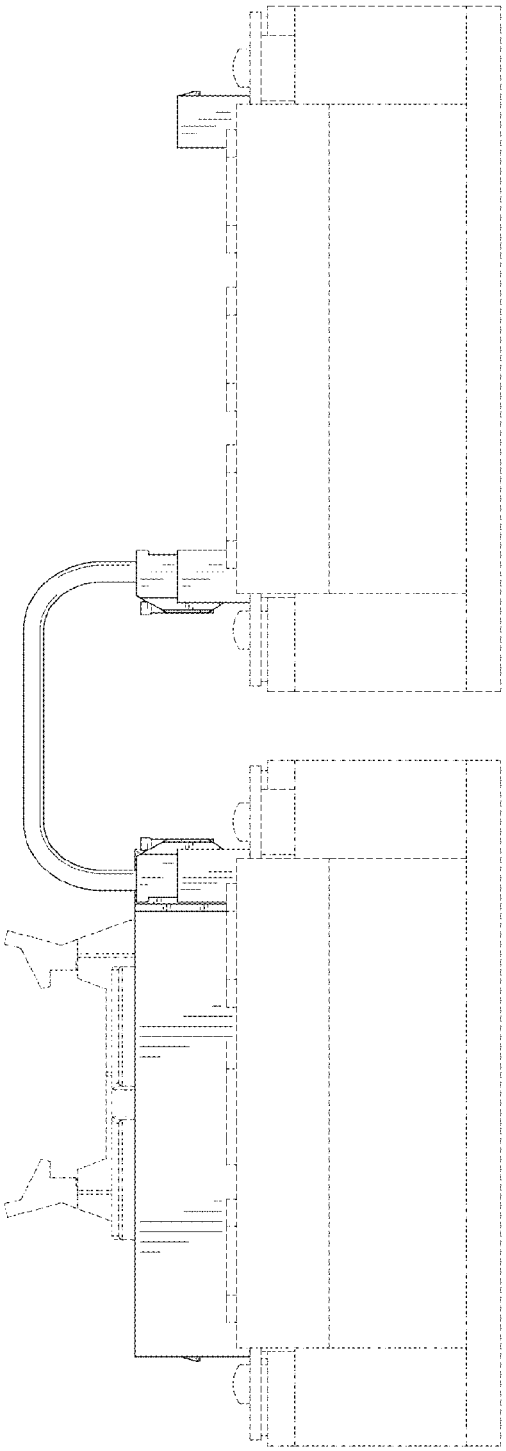


FIG. 3

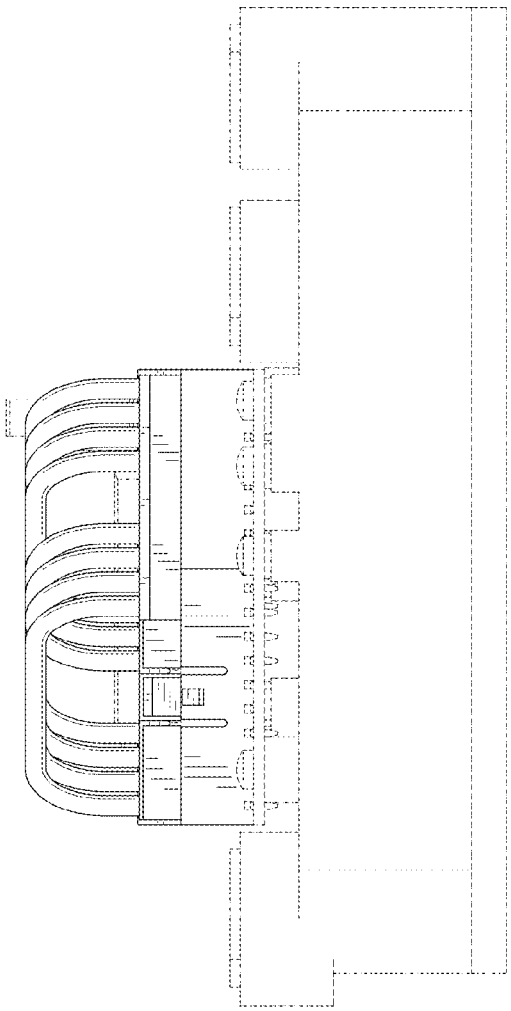


FIG. 4

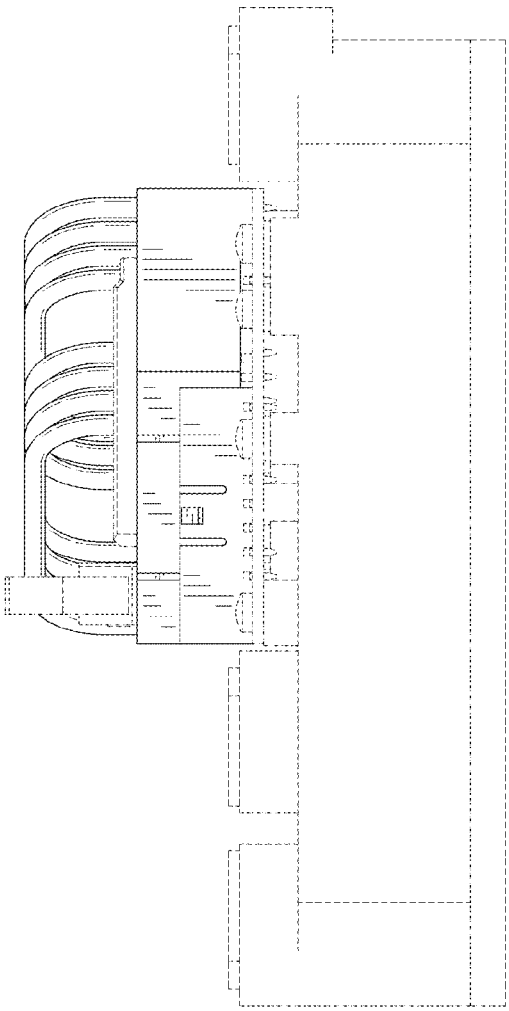


FIG. 5

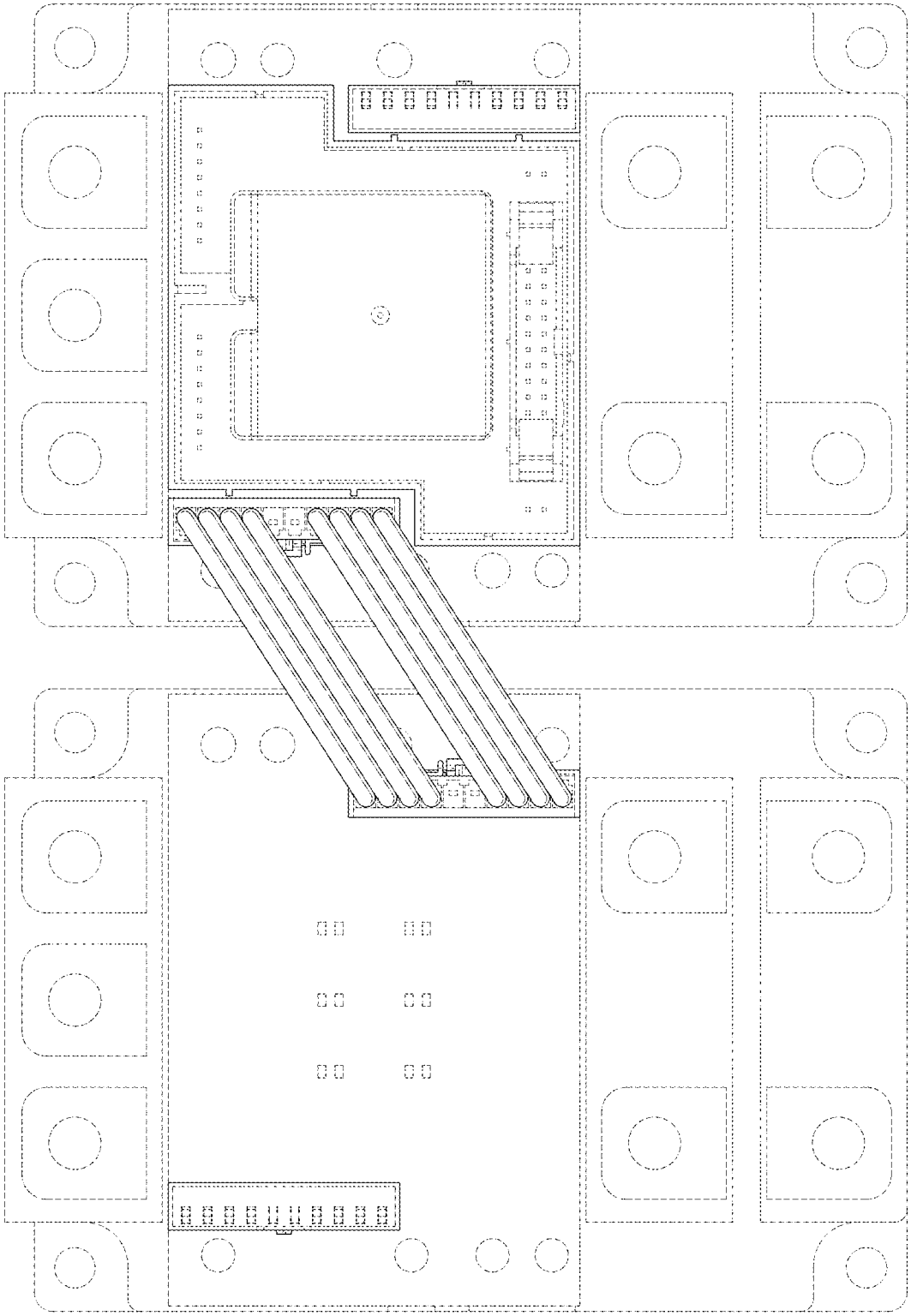


FIG. 6

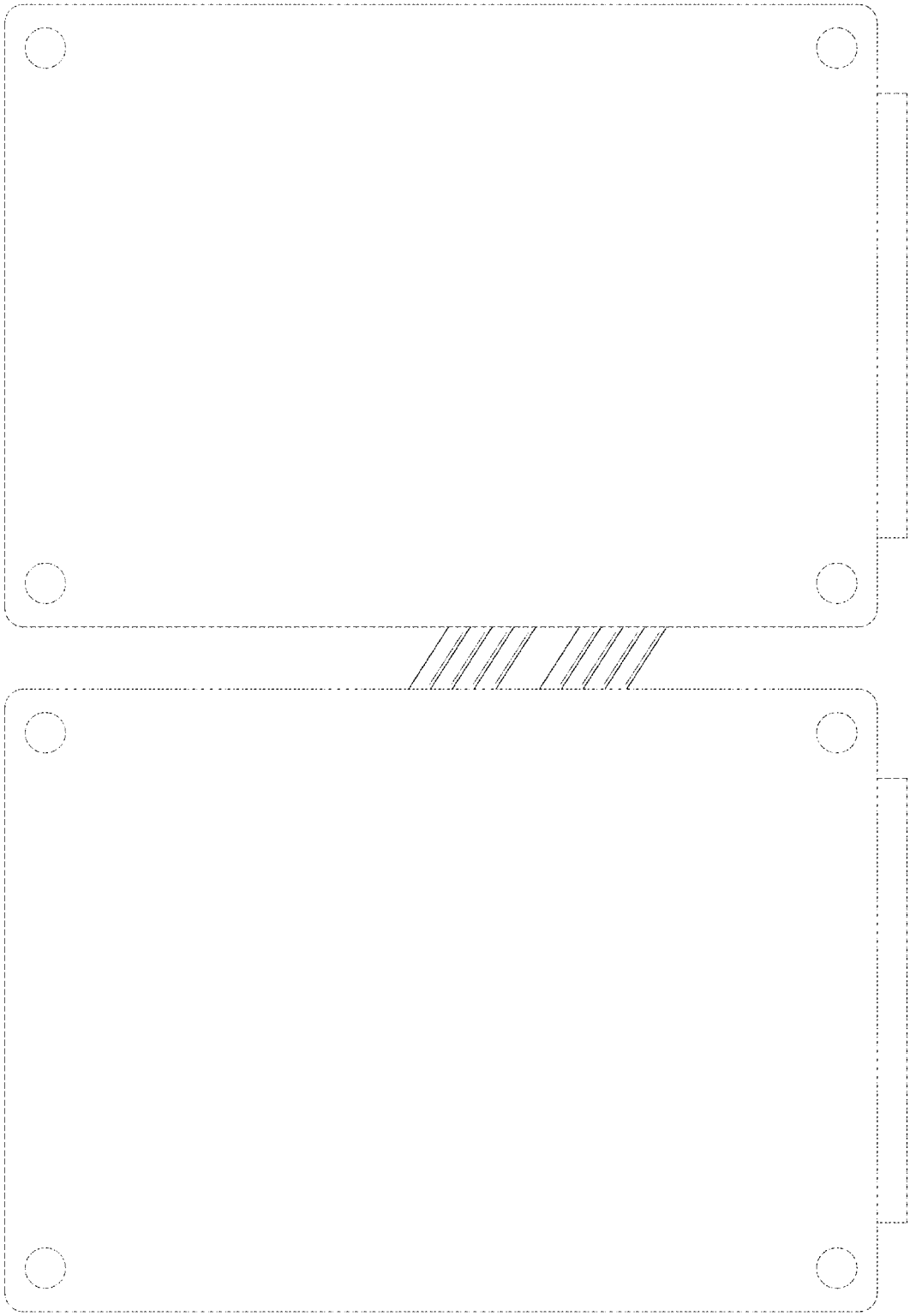


FIG. 7