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(12) **United States Design Patent**
Soyano et al.

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(54) **SEMICONDUCTOR MODULE**

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

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(22) Filed: **Oct. 12, 2016**

Related U.S. Application Data

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(30) **Foreign Application Priority Data**

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(51) **LOC (11) 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 2021/00; H01L 2021/02; H01L 2021/04; H01L 21/4814; H01L
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(57) **CLAIM**

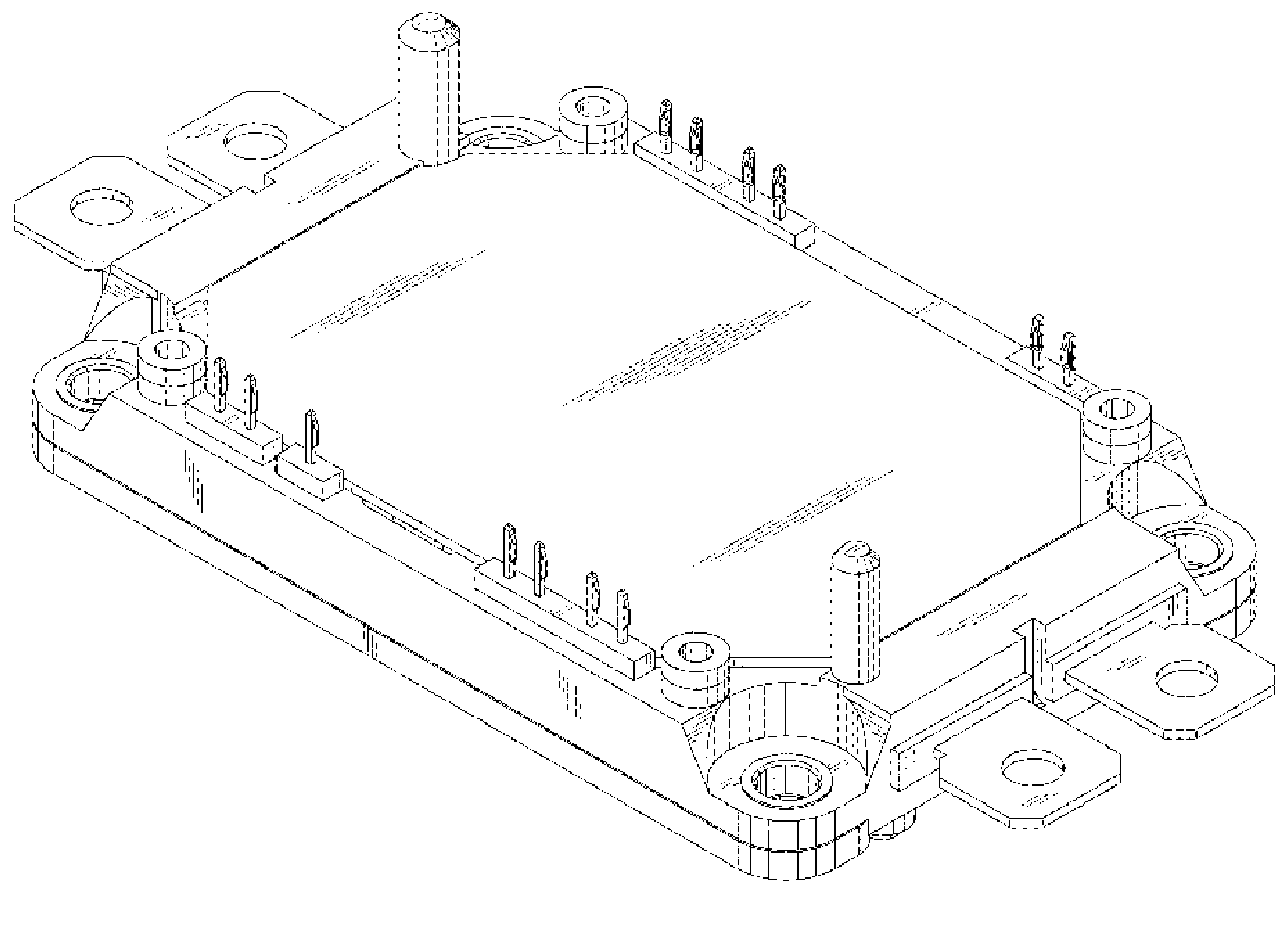
The ornamental design for a semiconductor module, as shown and described.

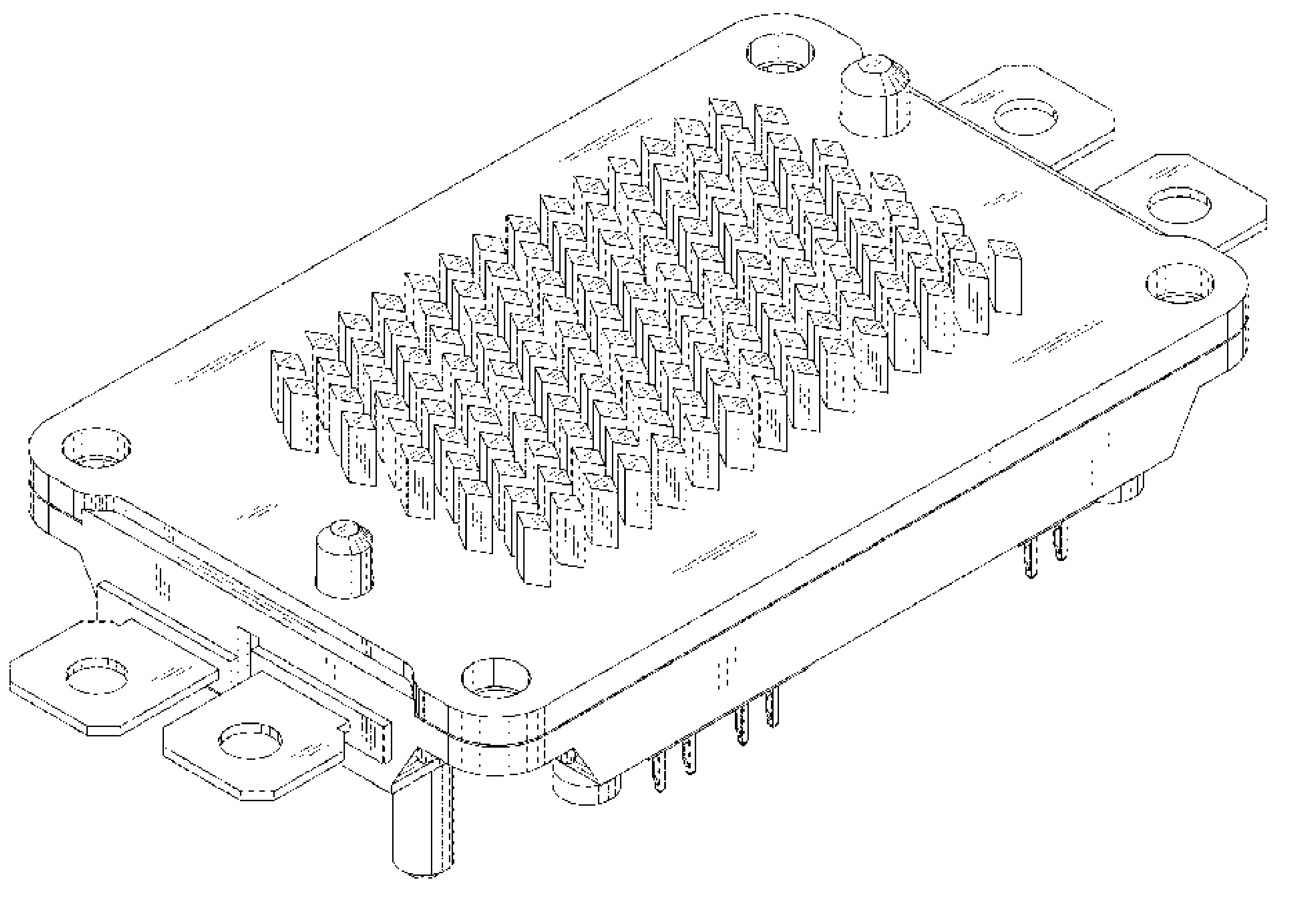
DESCRIPTION

FIG. **1** is a front view of a semiconductor module showing our new design;
FIG. **2** is a rear view thereof;
FIG. **3** is a left side view thereof;
FIG. **4** is a right side view thereof;
FIG. **5** is a top view thereof;
FIG. **6** is a bottom view thereof;
FIG. **7** is a front, right, and bottom perspective view thereof;
FIG. **8** is a rear, left and top perspective view thereof; and,
FIG. **9** is a cross sectional view taken along line **9-9** of FIG. **1**.

The ornamental design of the present disclosure is a semiconductor module on which power semiconductor elements and the like may be mounted. Plate shaped terminals are provided on the left side and right side. A plurality of post shaped pins extend from a rear surface. The cross-sections of the post shaped pins are rhombic. A hole penetrates from a front surface to the rear surface at each of four corners of the semiconductor module.

1 Claim, 9 Drawing Sheets





(58) **Field of Classification Search**

CPC 21/4846; H01L 21/4871; H01L 21/67144; H01L 23/02; 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 2224/08054; H01L 23/58; H05B 41/14; H02B 6/4201; G02B 6/4256; G02B 6/4257; G02B 6/4261; G02B 6/4262; G02B 6/428; G02B 6/4281; H05K 1/14; H05K 1/141; H05K 1/142; H05K 1/144; H05K 1/18; H05K 1/181; H05K 1/182; H05K 1/026

See application file for complete search history.

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FIG. 1

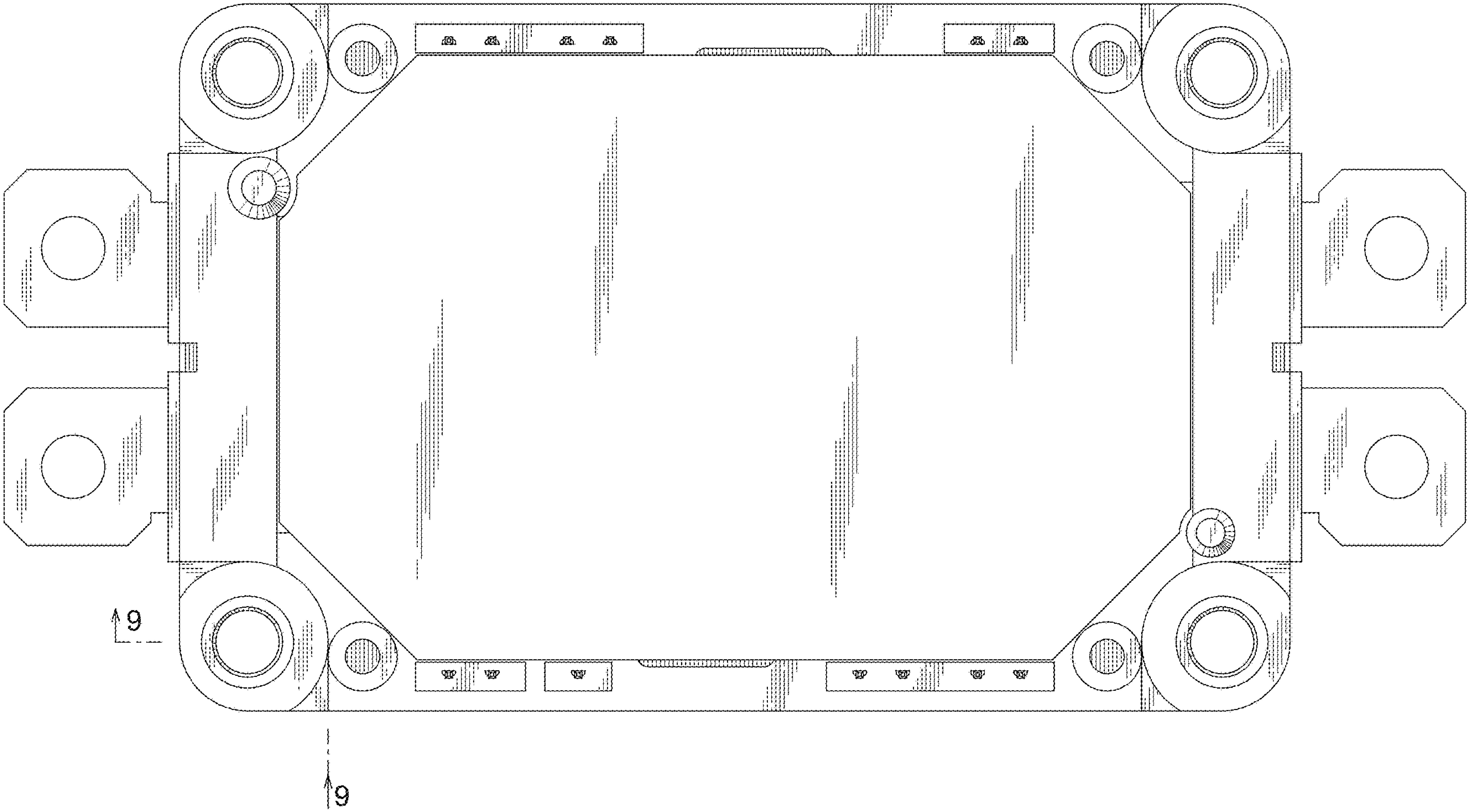
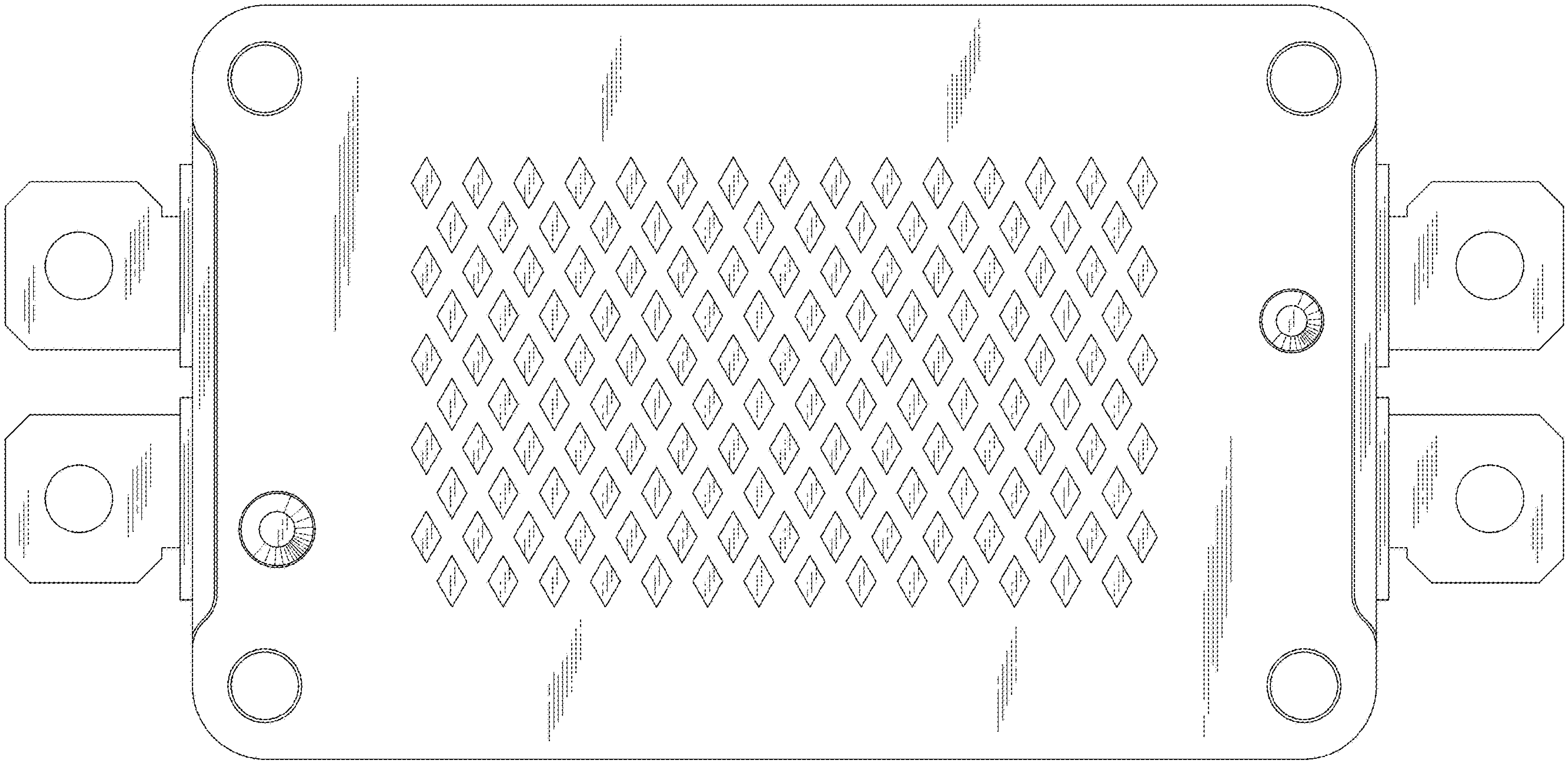


FIG. 2



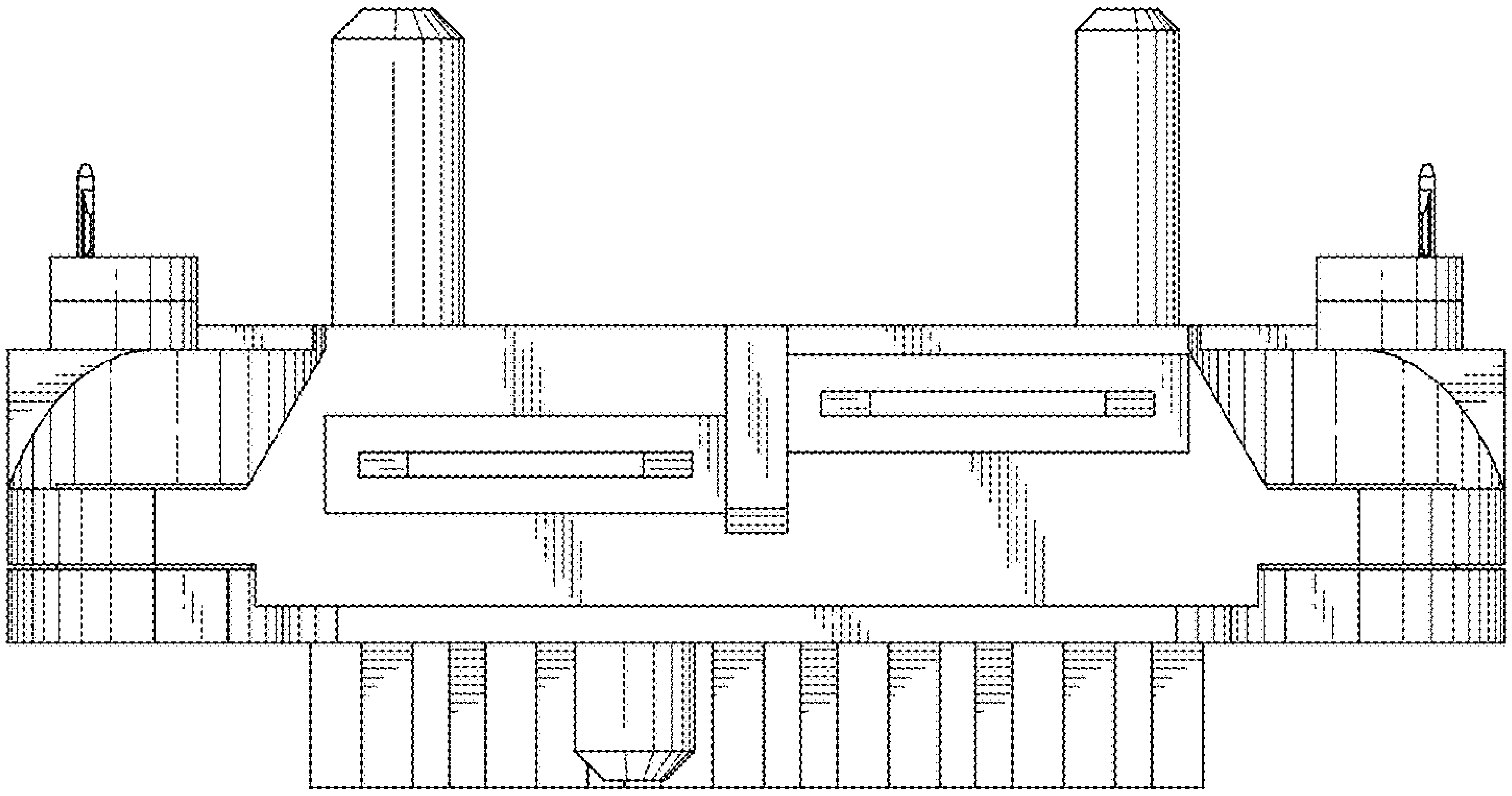


FIG. 3

FIG. 4

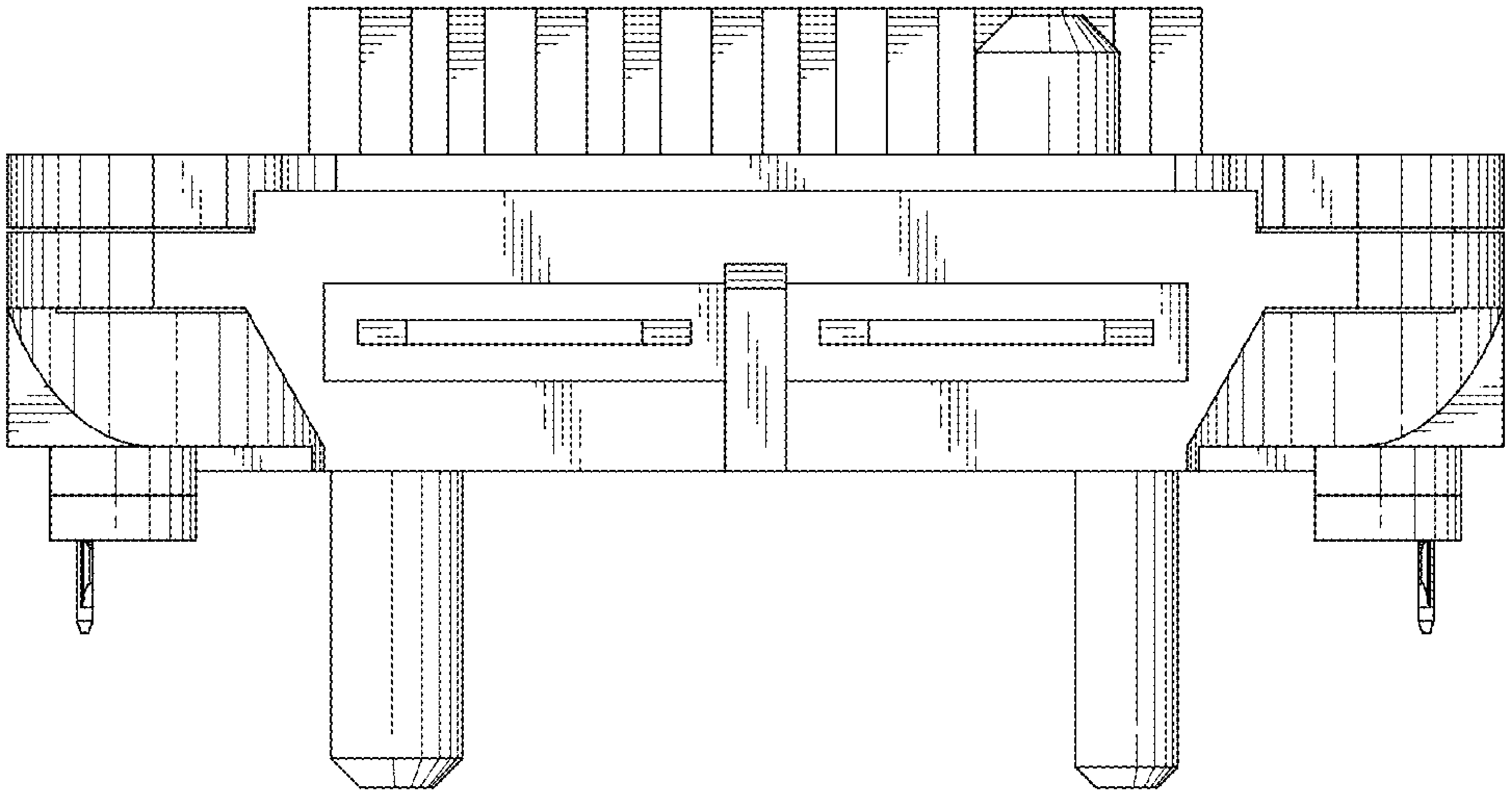


FIG. 5

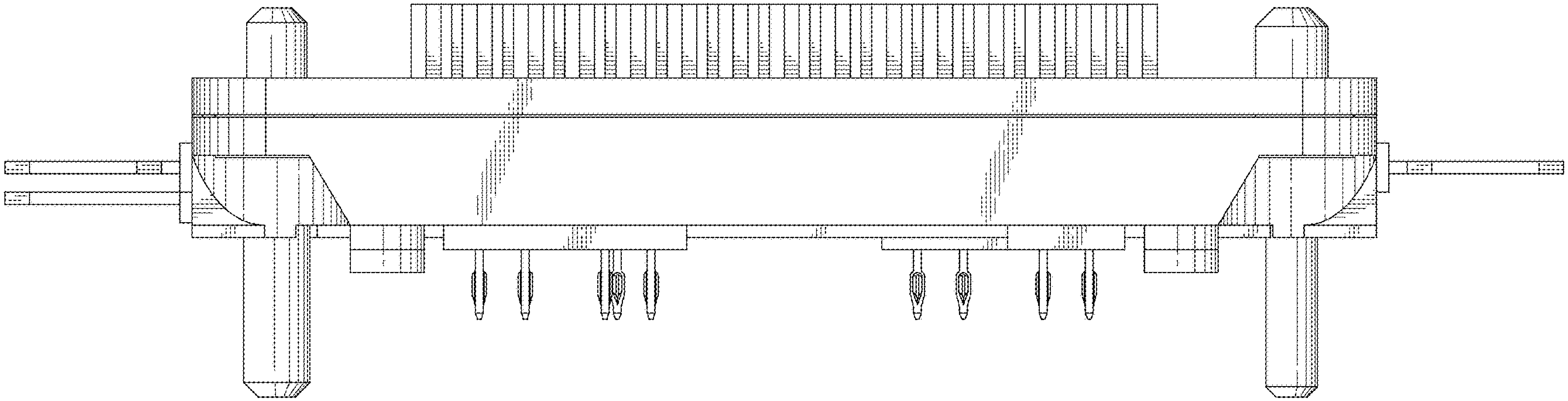


FIG. 6

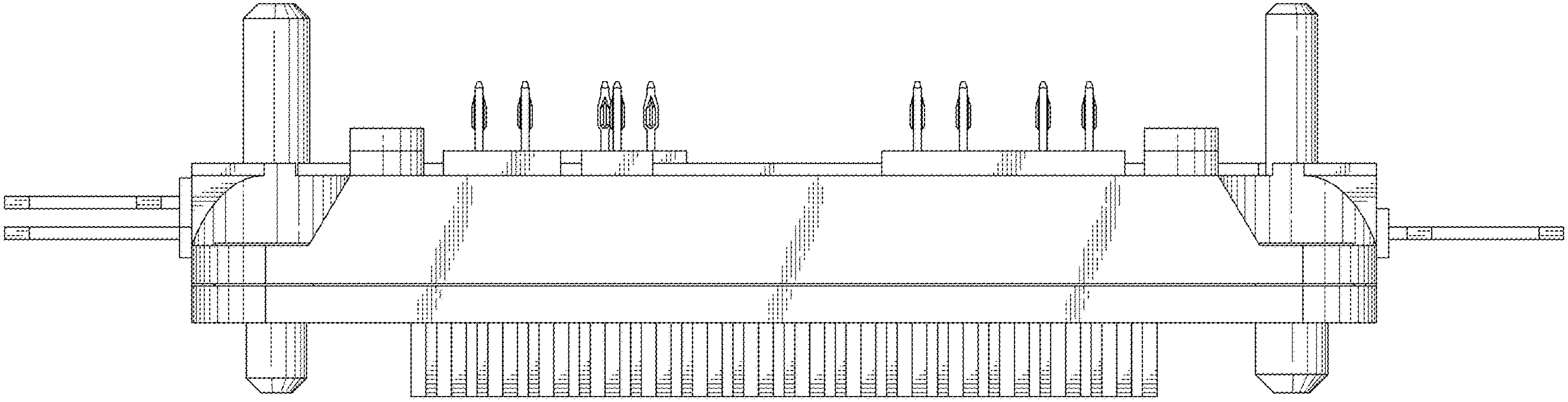


FIG. 7

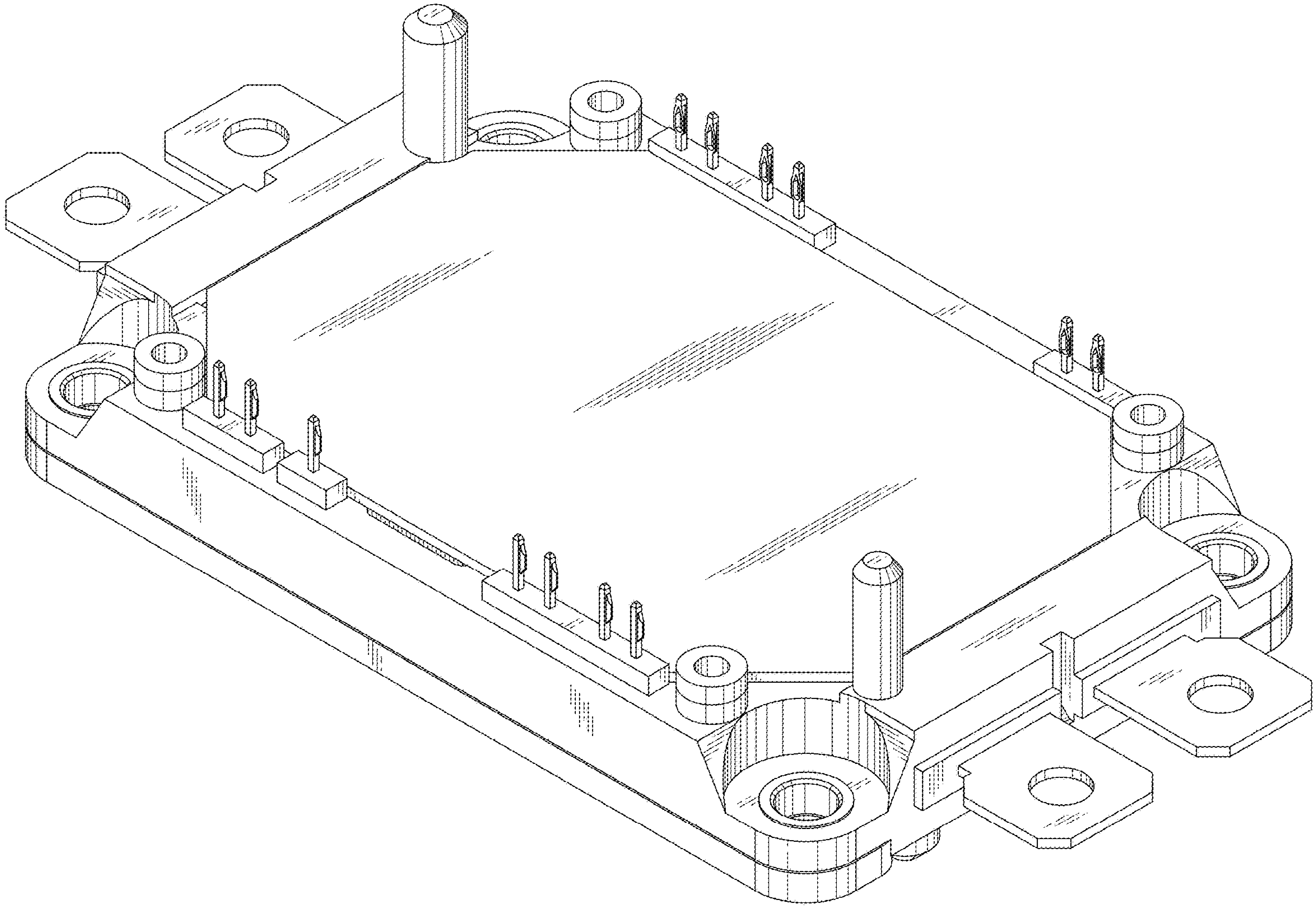


FIG. 8

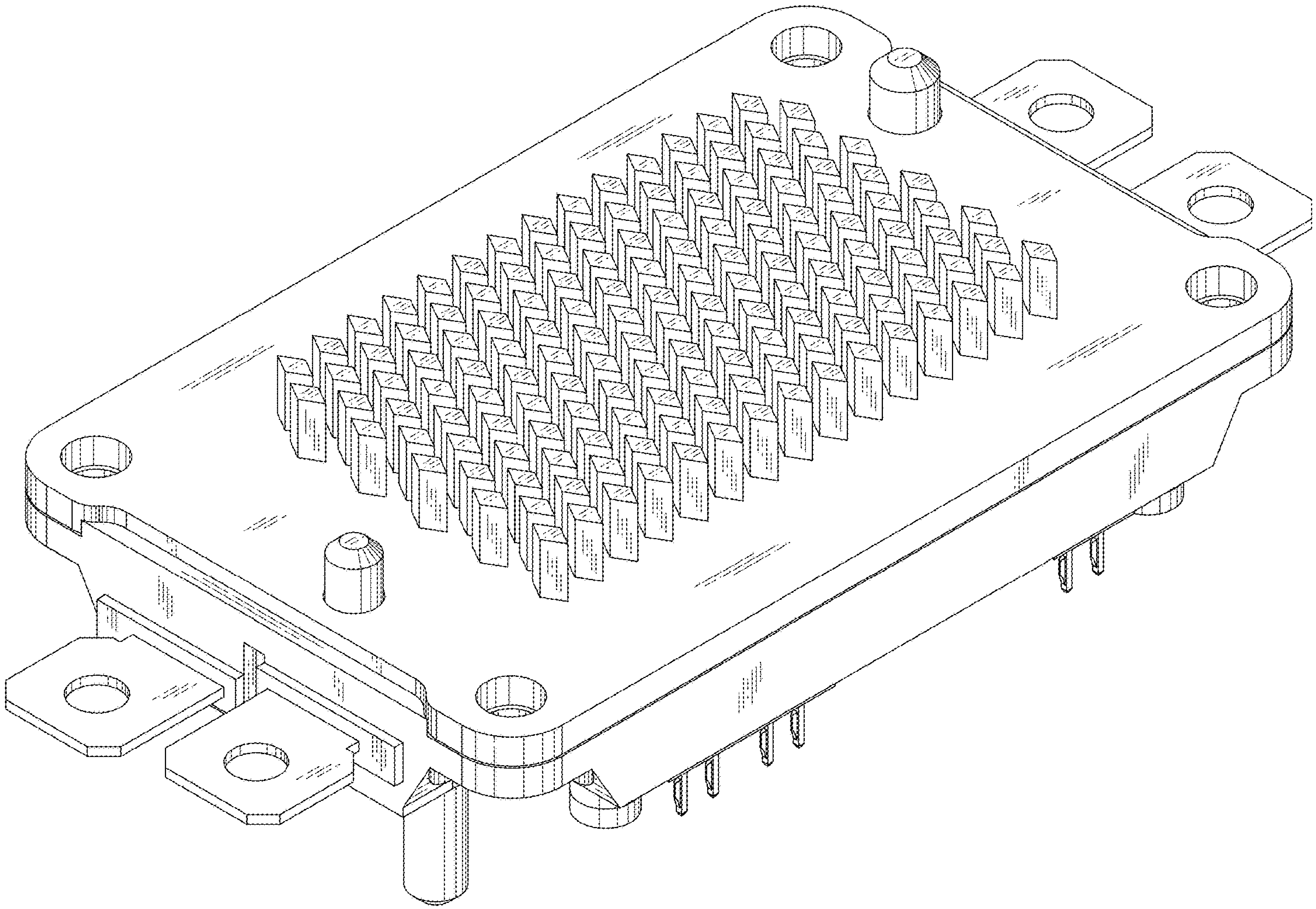


FIG. 9