



US00D928344S

(12) **United States Design Patent** (10) **Patent No.:** **US D928,344 S**
Takeuchi et al. (45) **Date of Patent:** **** Aug. 17, 2021**

(54) **GENE AMPLIFICATION CHIP FOR MEDICAL AND LABORATORY USE**

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(71) Applicant: **Nippon Sheet Glass Company, Limited**, Tokyo (JP)

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(73) Assignee: **Nippon Sheet Glass Company, Limited**, Tokyo (JP)

Communication issued Jan. 28, 2020 by the Japanese Patent Office in application No. 2019-009031.
(Continued)

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

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(21) Appl. No.: **35/509,152**

(22) Filed: **Oct. 21, 2019**

(57) **CLAIM**

The ornamental design for gene amplification chips for medical and laboratory use, as shown and described.

(80) **Hague Agreement Data**

Int. Filing Date: **Oct. 21, 2019**
Int. Reg. No.: **DM/205148**
Int. Reg. Date: **Oct. 21, 2019**
Int. Reg. Pub. Date: **Apr. 24, 2020**

DESCRIPTION

(30) **Foreign Application Priority Data**

Apr. 23, 2019 (JP) 2019-009031
Apr. 23, 2019 (JP) 2019-009032

- 1.-2. Gene amplification chip for medical and laboratory use
- 1.1 : Front
- 1.2 : Enlarged cross-sectional view
- 1.3 : Enlarged cross-sectional view
- 1.4 : Cross sectional
- 1.5 : Cross sectional
- 1.6 : Perspective
- 1.7 : Back
- 1.8 : Top
- 1.9 : Bottom
- 1.10 : Right
- 1.11 : Left
- 2.1 : Front
- 2.2 : Enlarged cross-sectional view
- 2.3 : Enlarged cross-sectional view
- 2.4 : Cross sectional
- 2.5 : Cross sectional
- 2.6 : Perspective
- 2.7 : Back
- 2.8 : Top
- 2.9 : Bottom

(51) **LOC (13) Cl.** **24-99**

(52) **U.S. Cl.**
USPC **D24/233; D24/225**

(58) **Field of Classification Search**
USPC D24/216, 223-226, 232, 233
(Continued)

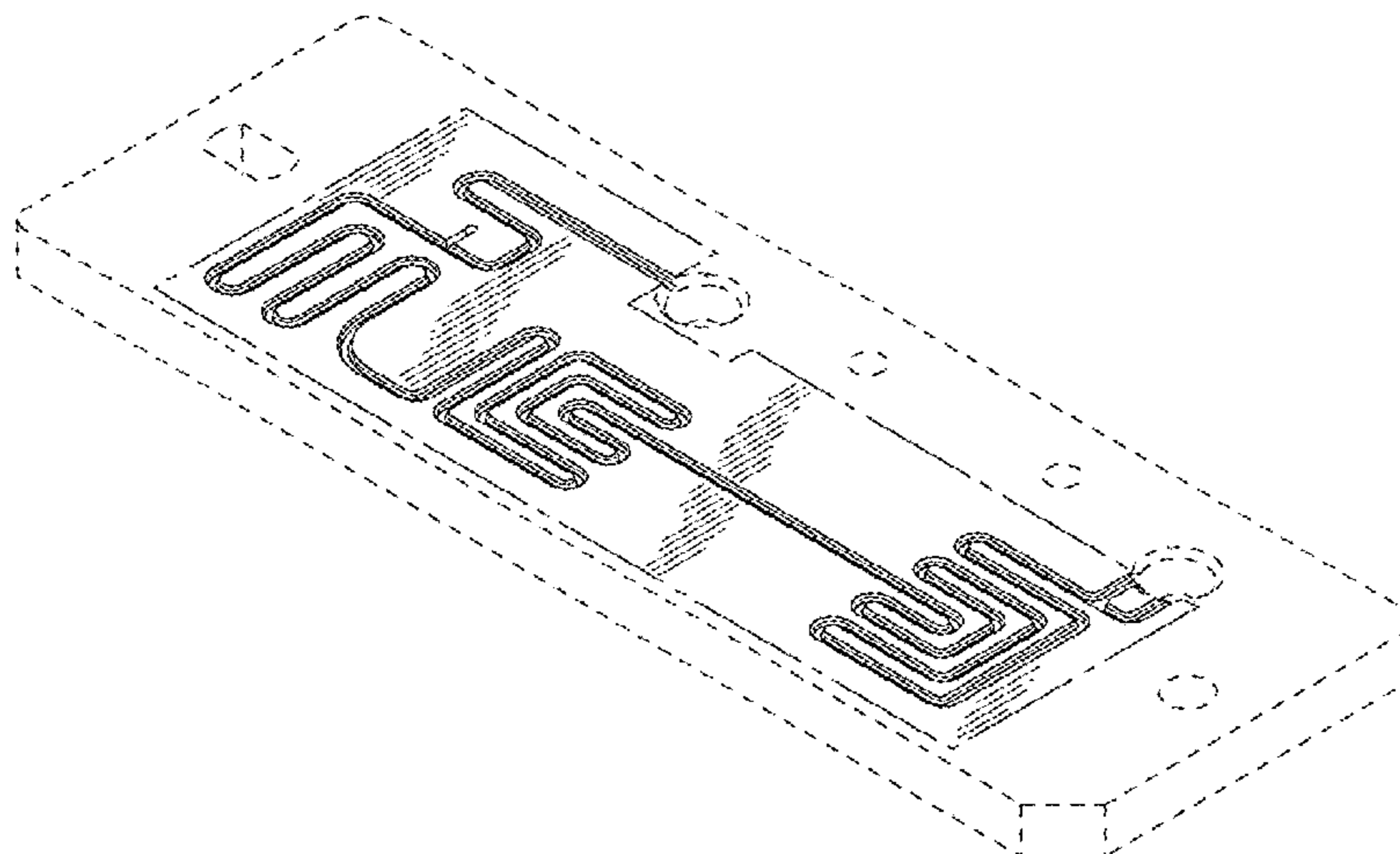
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2.10 : Right

2.11 : Left

The dashed broken lines depict portions of the gene amplification chip that form no part of the claimed design; the dot-dashed broken lines represent boundaries of the claimed gene amplification chip and form no part of the claimed design.

The article of this design is transparent. Design 1: reproduction 1.2 is an enlarged cross-sectional view sectioned vertically at a left part outside the left reaction channel of reproduction 1.1, reproduction 1.3 is an enlarged cross-sectional view sectioned vertically at the center of the right reaction channel of reproduction 1.1, reproduction 1.4 is a cross-sectional view sectioned horizontally along the detection channel of reproduction 1.1, and reproduction 1.5 is a cross-sectional view sectioned horizontally at a top part of the claimed portion of reproduction 1.1; design 2: reproduction 2.2 is an enlarged cross-sectional view sectioned vertically at the center of the detection channel of reproduction 2.1, reproduction 2.3 is an enlarged cross-sectional view sectioned vertically at a left part outside the left reaction channel of reproduction 2.1, reproduction 2.4 is a cross-sectional view sectioned horizontally along the detection channel of reproduction 2.1, and reproduction 2.5 is a cross-sectional view sectioned horizontally at a top part of the claimed portion of reproduction 2.1.

1 Claim, 22 Drawing Sheets

(58) **Field of Classification Search**

CPC B01L 7/525; B01L 3/502715; B01L 3/502738; B01L 3/50273

See application file for complete search history.

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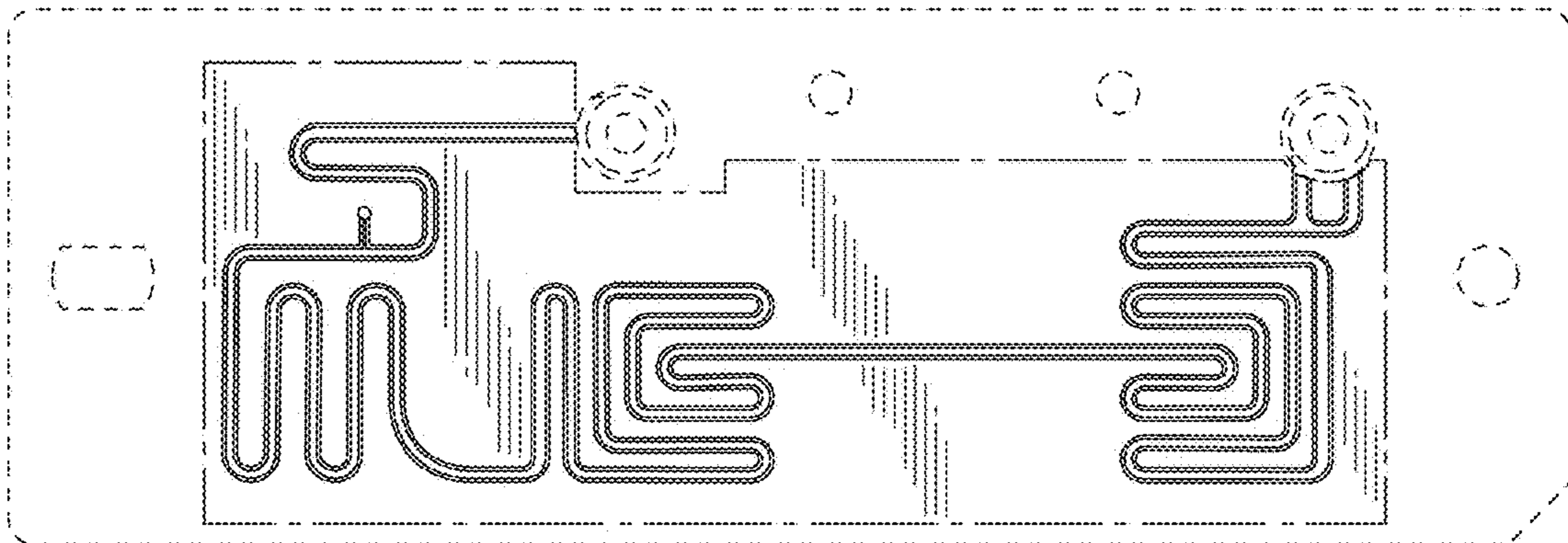
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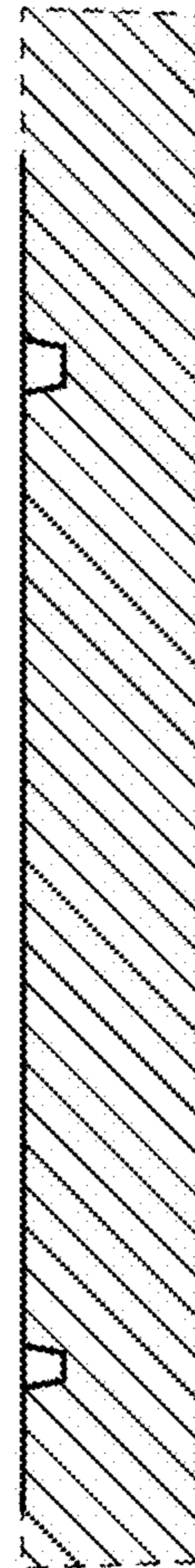
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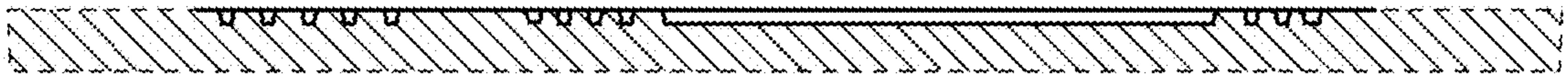
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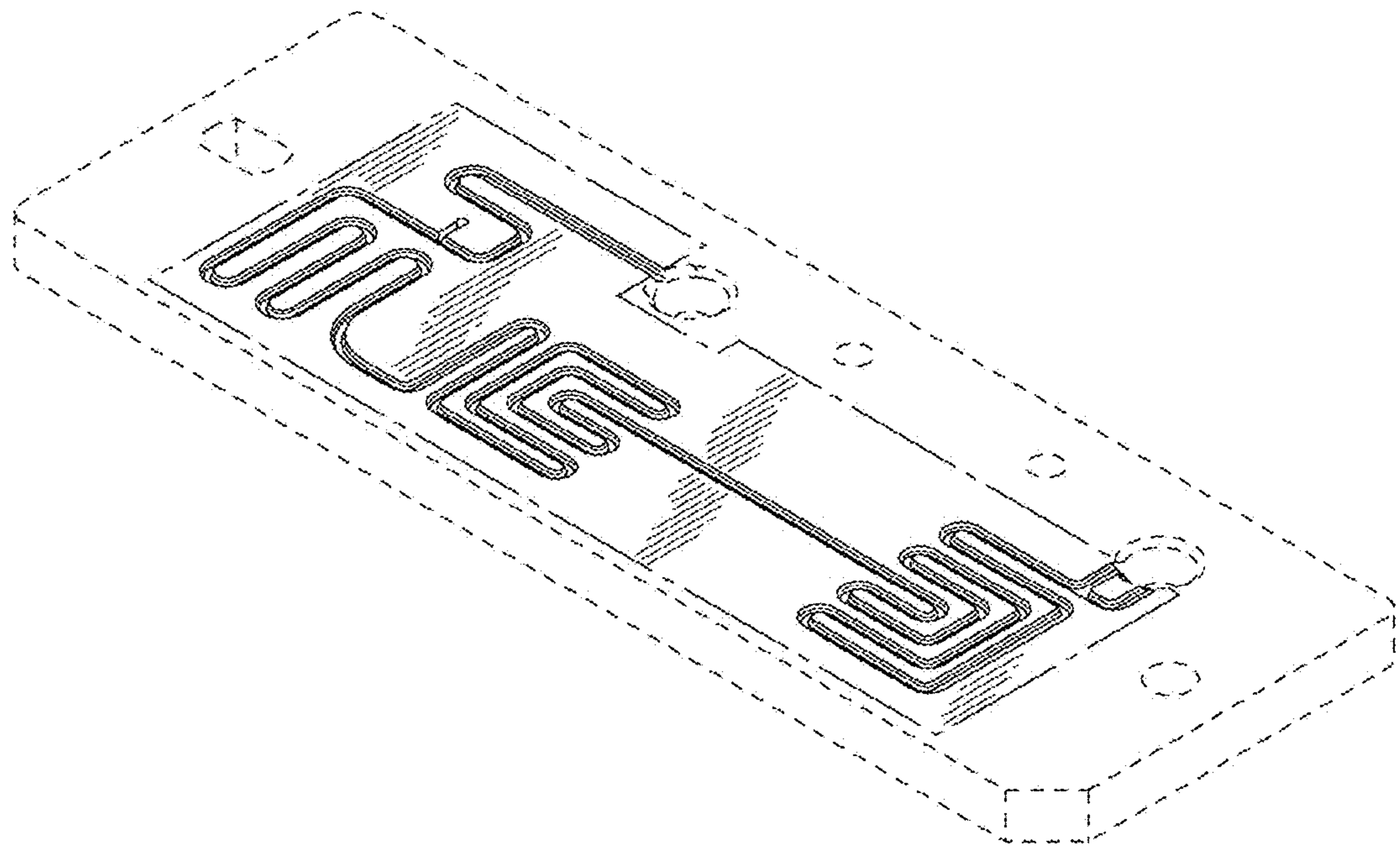
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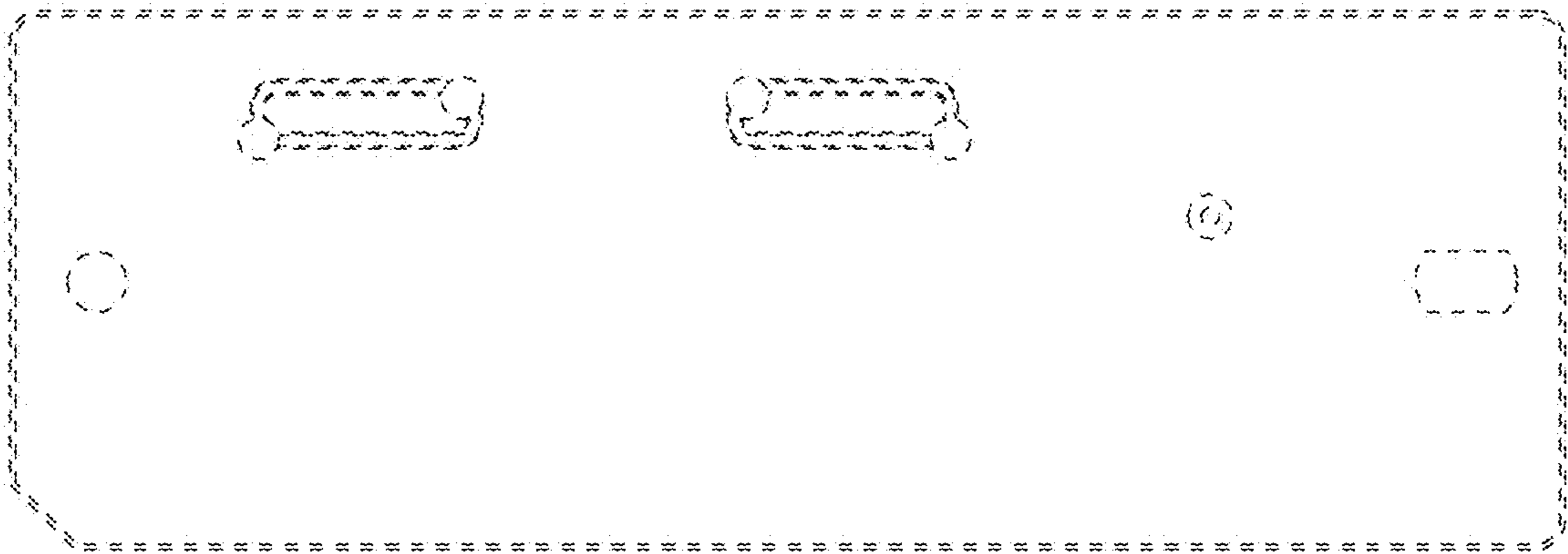
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1.6



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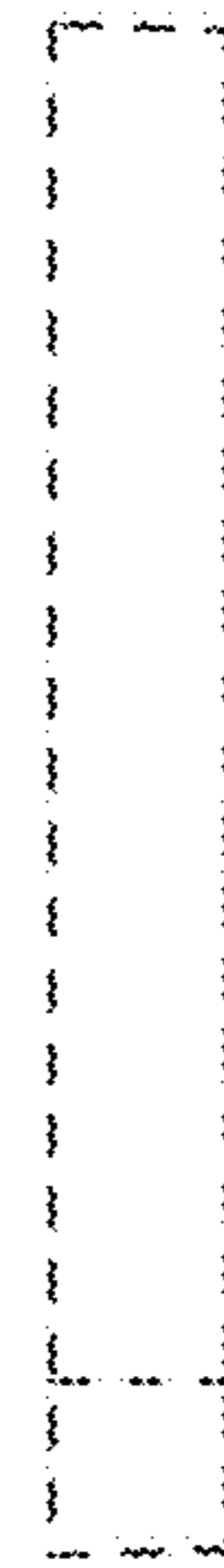
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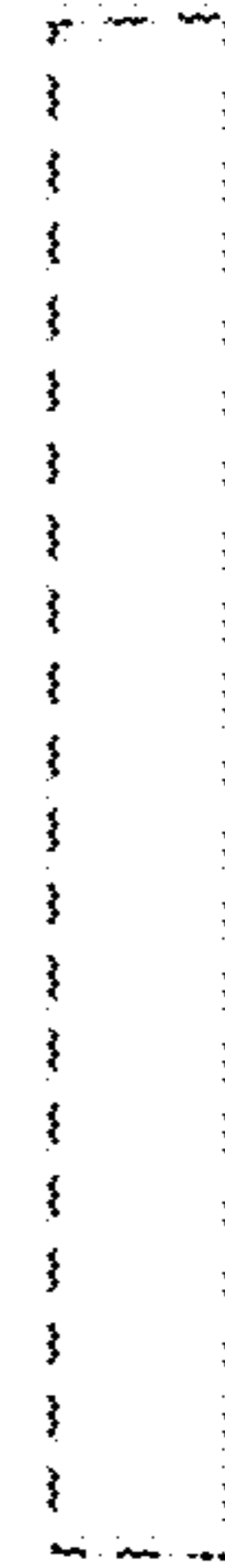
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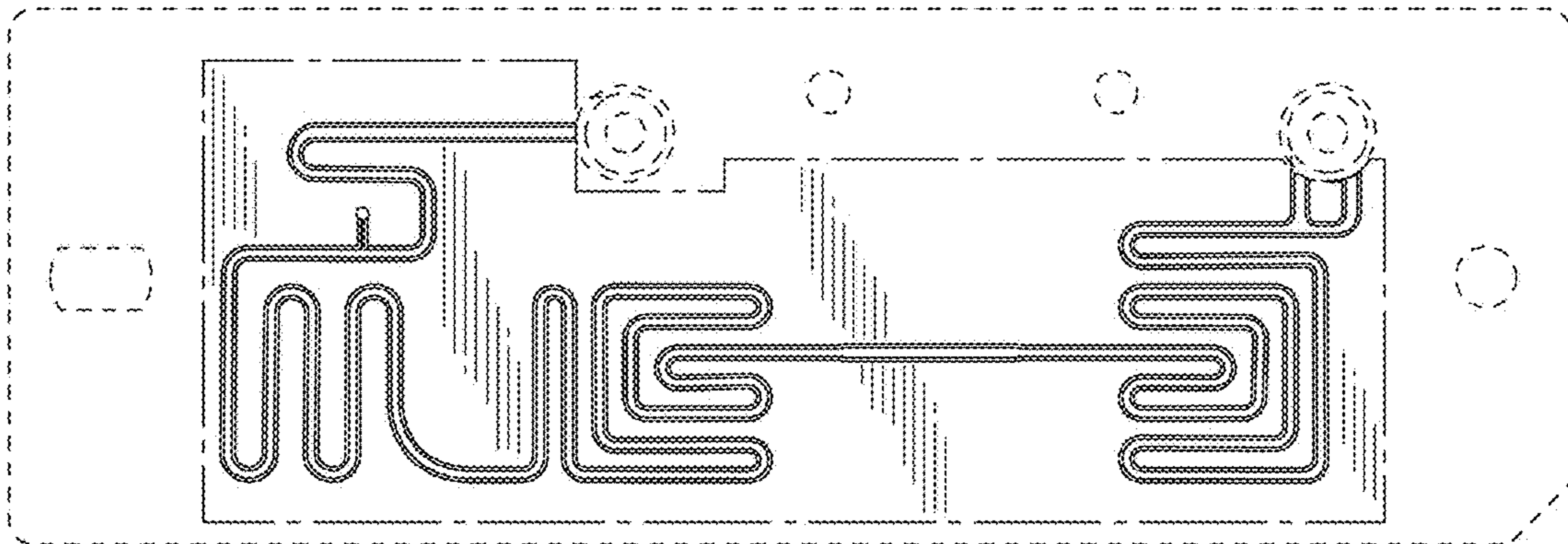
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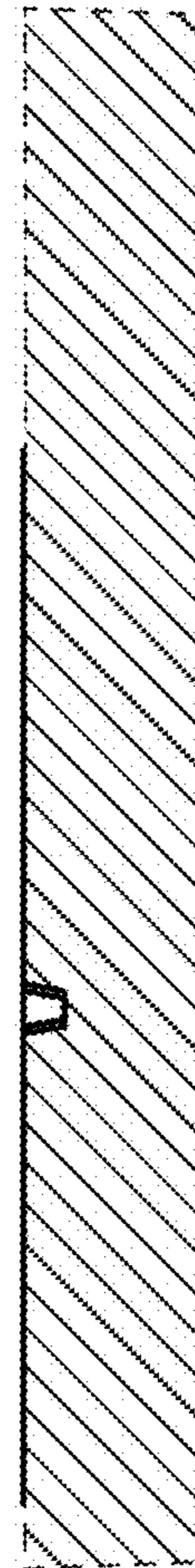
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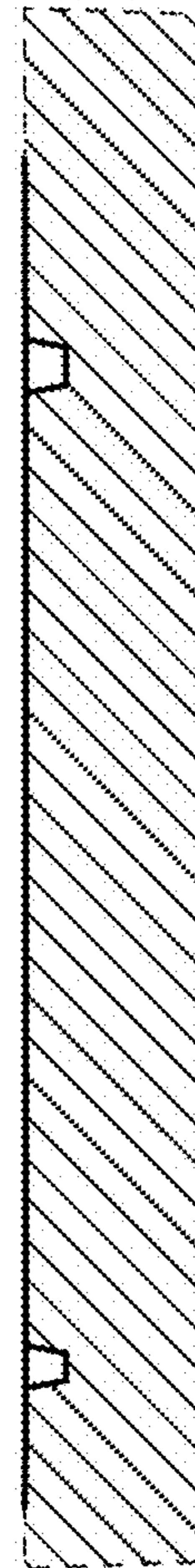
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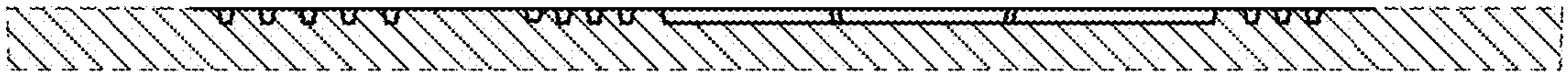
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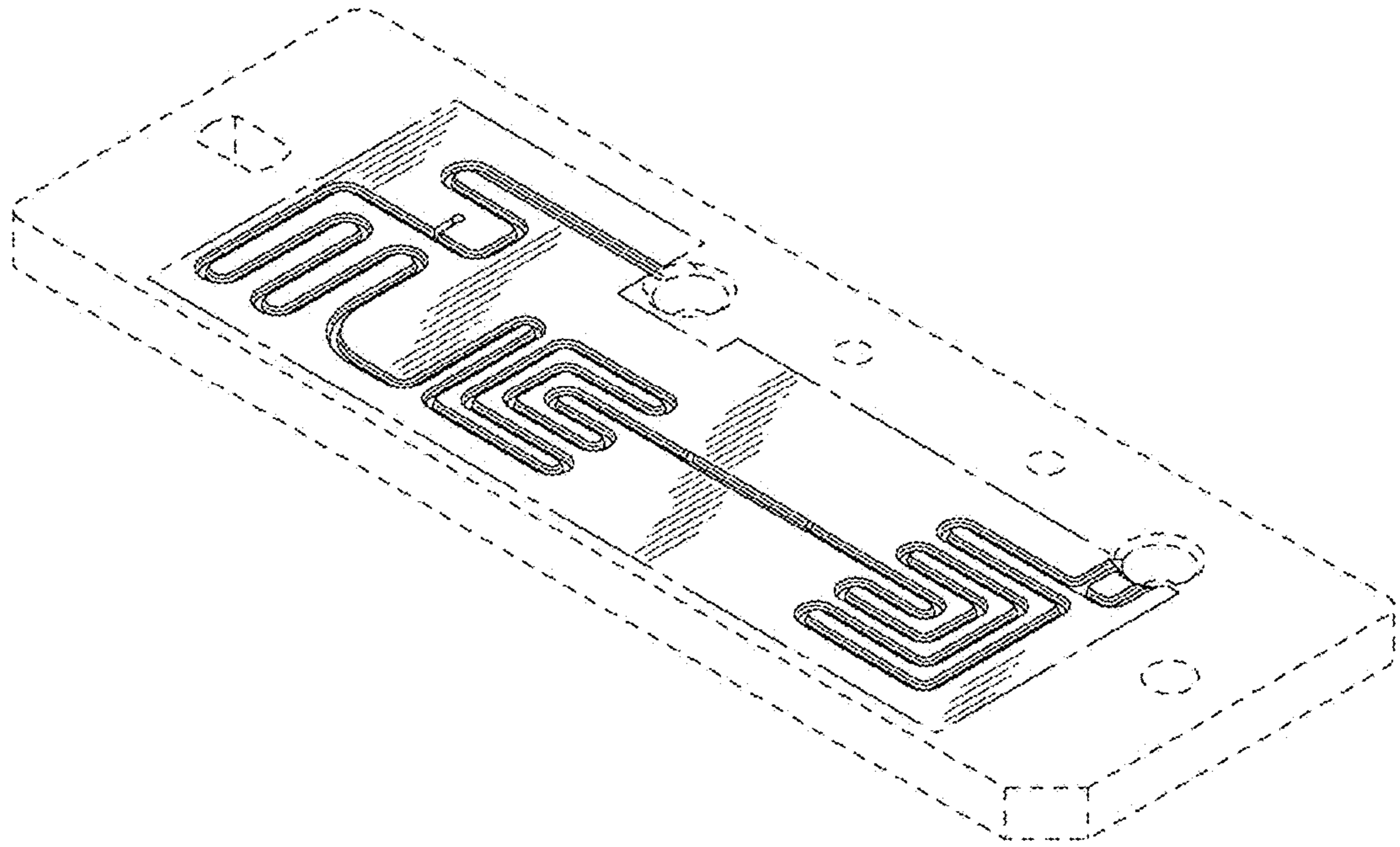
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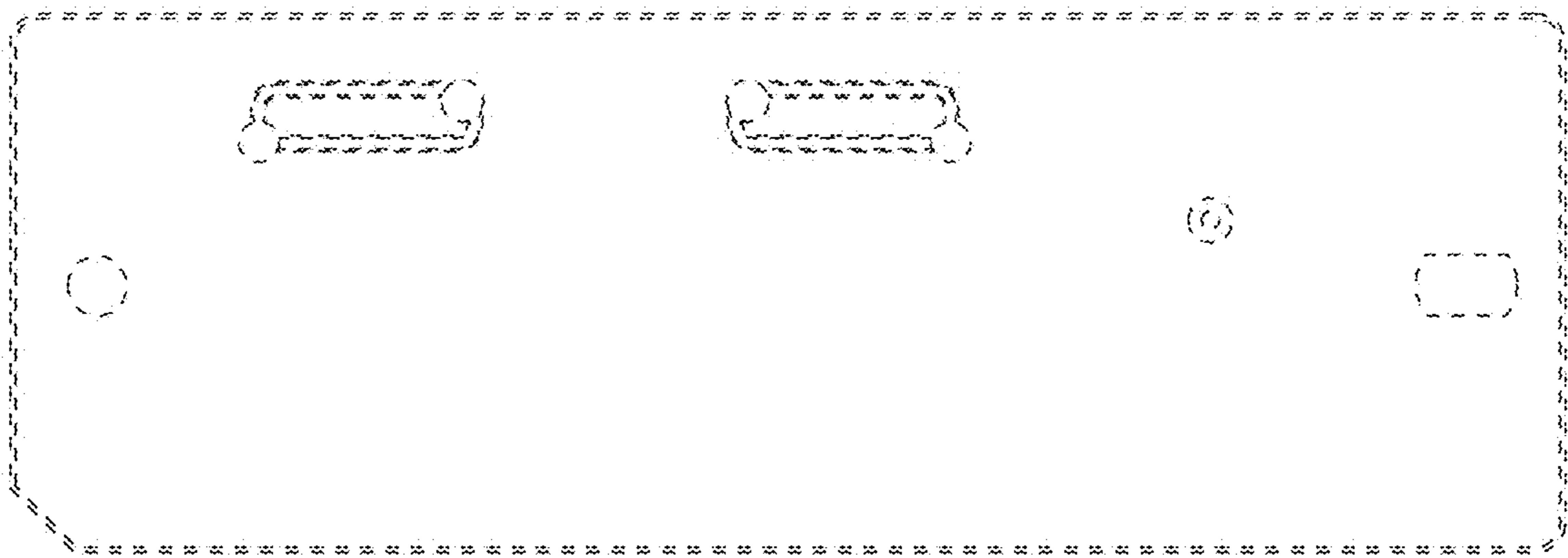
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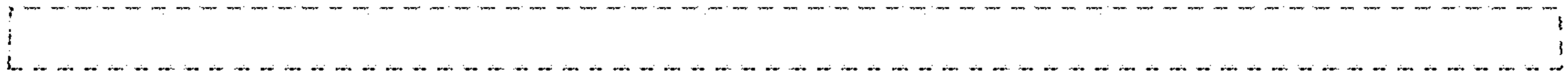
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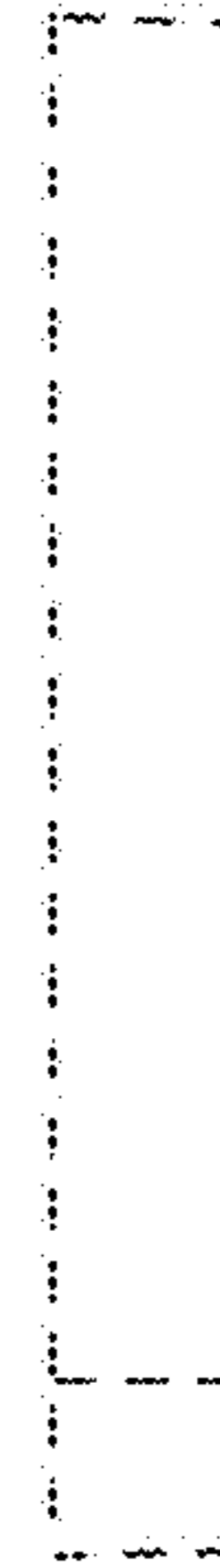
2.8



2.9



2.10



2.11

