

Saifun Semiconductors Ltd.  
Form 6-K  
January 31, 2007

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**SECURITIES AND EXCHANGE COMMISSION**

**Washington, D.C. 20549**

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**FORM 6-K**

**REPORT OF FOREIGN PRIVATE ISSUER**

**Pursuant to Rule 13a-16 or 15d-16 of the**

**Securities Exchange Act of 1934**

For the month of: January

Commission File No.: 000-51581

**Saifun Semiconductors Ltd.**

(Exact name of registrant as specified in charter)

**ELROD Building, 45 Hamelacha Street,  
Sappir Industrial Park, Netanya 42504, Israel**

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F  Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Indicate by check mark whether by furnishing the information contained in this Form, the registrant is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes  No

If  Yes is marked, indicate below the File Number assigned to the registrant in connection with Rule 12g3-2(b): \_\_\_\_\_.

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**EXPLANATORY NOTE**

On January 31, 2007, Saifun Semiconductors Ltd. issued a press release announcing Q4 2006 earnings results. A copy of the document is attached to this Form 6-K as Exhibit 99.1.

**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

SAIFUN SEMICONDUCTORS LTD.

Date: January 31, 2007

By: /s/ Igal Shany

Igal Shany  
Chief Financial Officer

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**EXHIBIT INDEX**

The following exhibit is filed as part of this Form 6-K:

<u>Exhibit</u>	<u>Description</u>
99.1	Press release, dated January 31, 2007, titled "Saifun Semiconductors Reports Q4 2006 Results"

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