

Rim Semiconductor CO  
Form NT 10-K  
January 29, 2007

SEC FILE NUMBER  
000-21785

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**FORM 12b-25**

**NOTIFICATION OF LATE FILING**

(Check one):  Form 10-K and Form 10-KSB     Form 20-F     Form 11-K     Form 10-Q and 10-QSB

Form 10-D     Form N-SAR     Form N-CSR

For Period Ended: October 31, 2006

Transition Report on Form 10-K

Transition Report on Form 20-F

Transition Report on Form 11-K

Transition Report on Form 10-Q

Transition Report on Form N-SAR

For the Transition Period Ended:

*Read Instruction (on back page) Before Preparing Form. Please Print or Type.*

**Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.**

If the notification relates to a portion of the filing checked above, identify the Item(s) to which the notification relates:

**PART I — REGISTRANT INFORMATION**

Rim Semiconductor Company

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Full Name of Registrant

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Former Name if Applicable

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305 NE 102<sup>nd</sup> Avenue, Suite 105

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Address of Principal Executive Office (*Street and Number*)

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Portland, Oregon 97220

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City, State and Zip Code

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**PART II — RULES 12b-25(b) AND (c)**

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate)

- (a) The reason described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense
  - ý (b) The subject annual report, semi-annual report, transition report on Form 10-K, Form 20-F, Form 11-K, Form N-SAR or Form N-CSR, or portion thereof, will be filed on or before the fifteenth calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q or subject distribution report on Form 10-D, or portion thereof, will be filed on or before the fifth calendar day following the prescribed due date; and
  - (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.
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**PART III — NARRATIVE**

State below in reasonable detail why Forms 10-K, 20-F, 11-K, 10-Q, 10-D, N-SAR, N-CSR, or the transition report or portion thereof, could not be filed within the prescribed time period. (Attach extra Sheets if Needed)

**The Registrant's Form 10-KSB for the period ended October 31, 2006 could not be filed within the prescribed time period without unreasonable effort or expense because: (i) the Registrant needs additional time to complete its financial statements; (ii) the Registrant's independent registered public accounting firm needs additional time to complete its audit of such financial statements; and (iii) the Registrant has not received information necessary to complete the financial statements, which information is expected to be furnished to the Company on or before February 2, 2007.**

**PART IV — OTHER INFORMATION**

(1) Name and telephone number of person to contact in regard to this notification

|            |             |                    |
|------------|-------------|--------------------|
| Brad Ketch | (503)       | 257-6700           |
| (Name)     | (Area Code) | (Telephone Number) |

(2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed ? If answer is no, identify report(s).

Yes  No

(3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof ?

Yes  No

If so, attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

**The Registrant reported a net loss of \$4,690,382 for the year ended October 31, 2005. The Registrant's net loss for the fiscal year ended October 31, 2006 is currently anticipated to be \$15,965,621. This increase in net loss was attributable principally to (i) increased interest expense of approximately \$7.8 million (primarily due to the value allocated to warrants related to convertible debentures issued by the Registrant in 2006, interest on such debentures, amortization and write-off of debt discount due to conversions of debentures and repayment of a note payable); (ii) increased amortization of deferred financing costs of approximately \$1.0 million (primarily due to conversions of convertible debentures issued by the Registrant in 2005, repayment of a note payable, and amortization of additional financing costs related to debentures issued by the Registrant in 2006); (iii) increased selling, general and administrative expenses of approximately \$2.5 million (primarily due to increased headcount and higher professional fees), and (iv) expenses of approximately \$777,000 related to the amortization of technology licenses and capitalized software development fees that commenced in 2006 and did not occur during the 2005 fiscal year.**

**This Notification of Late Filing on Form 12b-25 contains forward-looking statements, including forward-looking statements relating to the Registrant's financial results for the fiscal year ended October 31, 2006. These statements are based on management's current expectations and involve a number of risks and uncertainties, including risks described in our filings with the Securities and Exchange Commission. The Registrant's actual results may differ materially from the Registrant's anticipated or expected results and the results in the forward-looking statements.**

Rim Semiconductor Company

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(Name of Registrant as Specified in Charter)

has caused this notification to be signed on its behalf by the undersigned hereunto duly authorized.

Date January 29, 2007 By /s/ Brad Ketch  
Brad Ketch, President and Chief Executive Officer

INSTRUCTION: The form may be signed by an executive officer of the registrant or by any other duly authorized representative. The name and title of the person signing the form shall be typed or printed beneath the signature. If the statement is signed on behalf of the registrant by an authorized representative (other than an executive officer), evidence of the representative's authority to sign on behalf of the registrant shall be filed with the form.

**ATTENTION**

**Intentional misstatements or omissions of fact constitute Federal Criminal Violations  
(See 18 U.S.C. 1001).**