

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

SCHEDULE 13G

Under the Securities Exchange Act of 1934
(Amendment No.)

LUNA INNOVATIONS, INC.

(Name of Issuer)

Common Stock, par value \$0.001 per share

(Title of Class of Securities)

550351100

(CUSIP Number)

December 31, 2006

(Date of Event which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this
Schedule is filed:

Rule 13d-1(b)

Rule 13d-1(c)

Rule 13d-1(d)

* The remainder of this cover page shall be filled out for a reporting
person's initial filing on this form with respect to the subject class of
securities, and for any subsequent amendment containing information which
would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be
deemed to be "filed" for the purpose of Section 18 of the Securities Exchange
Act of 1934 ("Act") or otherwise subject to the liabilities of that section of
the Act but shall be subject to all other provisions of the Act (however, see
the Notes).

Continued on following pages
Page 1 of 12 Pages
Exhibit Index: Page 11

SCHEDULE 13G

CUSIP No.: 550351100

Page 2 of 12 Pages

- 1. Names of Reporting Persons.
I.R.S. Identification Nos. of above persons (entities only).

MAGNETAR INVESTMENT MANAGEMENT, LLC

2. Check the Appropriate Box if a Member of a Group
(a)

(b) []

3. SEC Use Only

4. Citizenship or Place of Organization

Delaware

Number of Shares Beneficially Owned by Each Reporting Person With	5.	Sole Voting Power	659,964
	6.	Shared Voting Power	None
	7.	Sole Dispositive Power	659,964
	8.	Shared Dispositive Power	None

9. Aggregate Amount Beneficially Owned by Each Reporting Person

659,964

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

[]

11. Percent of Class Represented by Amount in Row (9)

6.69% based on 9,860,664 shares outstanding as of November 9, 2006.

12. Type of Reporting Person:

IA; OO

SCHEDULE 13G

CUSIP No.: 550351100

Page 3 of 12 Pages

1. Names of Reporting Persons.

I.R.S. Identification Nos. of above persons (entities only).

MAGNETAR CAPITAL PARTNERS LP

2. Check the Appropriate Box if a Member of a Group

(a) []

(b) []

3. SEC Use Only

4. Citizenship or Place of Organization

Delaware

Number of Shares Beneficially Owned by Each Reporting Person With	5.	Sole Voting Power	None
	6.	Shared Voting Power	869,523
	7.	Sole Dispositive Power	None
	8.	Shared Dispositive Power	869,523

9. Aggregate Amount Beneficially Owned by Each Reporting Person

869,523

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

[]

11. Percent of Class Represented by Amount in Row (9)
8.82% based on 9,860,664 shares outstanding as of November 9, 2006.

12. Type of Reporting Person:
HC; OO

SCHEDULE 13G

CUSIP No.: 550351100

Page 4 of 12 Pages

1. Names of Reporting Persons.
I.R.S. Identification Nos. of above persons (entities only).

SUPERNOVA MANAGEMENT LLC

2. Check the Appropriate Box if a Member of a Group
(a)
(b)

3. SEC Use Only

4. Citizenship or Place of Organization

Delaware

Number of Shares Beneficially Owned by Each Reporting Person With

5. Sole Voting Power	None
6. Shared Voting Power	869,523
7. Sole Dispositive Power	None
8. Shared Dispositive Power	869,523

9. Aggregate Amount Beneficially Owned by Each Reporting Person
869,523

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

11. Percent of Class Represented by Amount in Row (9)
8.82% based on 9,860,664 shares outstanding as of November 9, 2006.

12. Type of Reporting Person:
HC; OO

SCHEDULE 13G

CUSIP No.: 550351100

Page 5 of 12 Pages

1. Names of Reporting Persons.
I.R.S. Identification Nos. of above persons (entities only).

ALEC N. LITOWITZ

2. Check the Appropriate Box if a Member of a Group
(a) []
(b) []

3. SEC Use Only

4. Citizenship or Place of Organization

United States of America

Number of Shares Beneficially Owned by Each Reporting Person With

5. Sole Voting Power None

6. Shared Voting Power 869,523

7. Sole Dispositive Power None

8. Shared Dispositive Power 869,523

9. Aggregate Amount Beneficially Owned by Each Reporting Person

869,523

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

[]

11. Percent of Class Represented by Amount in Row (9)

8.82% based on 9,860,664 shares outstanding as of November 9, 2006.

12. Type of Reporting Person:

HC

Page 6 of 12 Pages

Item 1(a). Name of Issuer:

Luna Innovations, Inc. (the "Issuer")

Item 1(b).

Address of Issuer's Principal Executive Offices:

1703 South Jefferson Street, SW, Suite 400
Roanoke, VA 24016

Item 2(a). Name of Person Filing

This Statement is filed on behalf of each of the following persons (collectively, the "Reporting Persons"):

- i) Magnetar Investment Management, LLC ("Magnetar Investment Management")
- ii) Magnetar Capital Partners LP ("Magnetar Capital Partners");
- iii) Supernova Management LLC ("Supernova Management"); and
- iv) Alec N. Litowitz ("Mr. Litowitz").

This Statement relates to Shares (as defined herein) held for the accounts of Magnetar Capital Master Fund, Ltd, a Cayman Islands exempted company ("Magnetar Capital Master Fund"), certain managed accounts (the "Managed Accounts"), Magnetar SGR Fund, Ltd. and Magnetar SGR Fund, LP. Magnetar Capital Partners serves as the sole member and parent holding company of Magnetar Investment Management, and Magnetar Financial LLC, a Delaware limited liability company ("Magnetar Financial"). Each of Magnetar Financial and Magnetar Investment Management are registered investment advisers under Section 203 of the Investment Advisers Act of 1940, as amended. Magnetar

Financial serves as investment adviser to Magnetar Capital Master Fund. In such capacity, Magnetar Financial exercises voting and investment power over the Shares held for the account of Magnetar Capital Master Fund. Magnetar Investment Management serves as investment adviser to the Managed Accounts, Magnetar SGR Fund, Ltd and Magnetar SGR Fund, LP. In such capacity, Magnetar Investment Management exercises voting and investment power over the Shares held for the accounts of the Managed Accounts, Magnetar SGR Fund, Ltd and Magnetar SGR Fund, LP. Supernova Management is the general partner of Magnetar Capital Partners. The manager of Supernova Management is Mr. Litowitz.

Item 2(b). Address of Principal Business Office or, if None, Residence:

The address of the principal business office of each of Magnetar Investment Management, Magnetar Capital Partners, Supernova Management, and Mr. Litowitz is 1603 Orrington Avenue, 13th Floor, Evanston, Illinois 60201.

Item 2(c). Citizenship:

- i) Magnetar Investment Management is a Delaware limited liability company;
- ii) Magnetar Capital Partners is a Delaware limited partnership;

Page 7 of 12 Pages

iii) Supernova Management is a Delaware limited liability company; and

iv) Mr. Litowitz is a citizen of the United States of America.

Item 2(d). Title of Class of Securities:

Common Stock, par value \$.001 per share (the "Shares")

Item 2(e). CUSIP Number:

550351100

Item 3. If This Statement is Filed Pursuant to ss.ss.240.13d-1(b) or 240.13d-2(b) or (c), Check Whether the Person Filing is a:

- (a) Broker or dealer registered under Section 15 of the Exchange Act.
- (b) Bank as defined in Section 3(a)(6) of the Exchange Act.
- (c) Insurance company as defined in Section 3(a)(19) of the Exchange Act.
- (d) Investment company registered under Section 8 of the Investment Company Act.
- (e) An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E);
- (f) An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F).
- (g) A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G).
- (h) A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act.
- (i) A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act.

Item 4. Ownership:

Item 4(a) Amount Beneficially Owned:

(i) As of February 5, 2007, each of Magnetar Capital Partners, Supernova Management and Mr. Litowitz may be deemed to be the beneficial owner of 869,523 Shares. This amount consists of: (A) 209,559 Shares held for the account of Magnetar Capital Master Fund; ((B) 3,391 Shares held for the account of Magnetar SGR Fund Ltd; (C) 55,850 Shares held for the account of Magnetar SGR Fund LP and (D) 600,723 Shares held for the account of the Managed Accounts).

(ii) As of February 5, 2007, Magnetar Investment Management may be deemed to be the beneficial owner of 659,964 Shares. This amount consists of: (A) 3,391 Shares held for the account of SGR Fund Ltd; (B) 55,850 Shares held for the account of SGR Fund LP and (C) 600,723 Shares held for the account of the Managed Accounts.

Item 4(b) Percent of Class:

Page 8 of 12 Pages

(i) The number of Shares of which each of Magnetar Capital Partners, Supernova Management and Mr. Litowitz may be deemed to be the beneficial owner constitutes approximately 8.82% of the total number of Shares outstanding (based upon information provided by the Issuer in its most recently filed registration statement on Form 10-Q, there were approximately 9,860,664 shares outstanding as of November 9, 2006).

(ii) The number of Shares of which Magnetar Investment Management may be deemed to be the beneficial owner constitutes approximately 6.69% of the total number of Shares outstanding.

Item 4(c) Number of Shares of which such person has:

Magnetar Investment Management:

(i) Sole power to vote or direct the vote:	659,964
(ii) Shared power to vote or direct the vote:	0
(iii) Sole power to dispose or direct the disposition of:	659,964
(iv) Shared power to dispose or direct the disposition of:	0

Magnetar Capital Partners, Supernova Management, and Mr. Litowitz:

(i) Sole power to vote or direct the vote:	0
(ii) Shared power to vote or direct the vote:	869,523
(iii) Sole power to dispose or direct the disposition of:	0
(iv) Shared power to dispose or direct the disposition of:	869,523

Item 5. Ownership of Five Percent or Less of a Class:

This Item 5 is not applicable.

Item 6. Ownership of More than Five Percent on Behalf of Another Person:

This Item 6 is not applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company:

See disclosure in Item 2 hereof.

Item 8. Identification and Classification of Members of the Group:

This Item 8 is not applicable.

Item 9. Notice of Dissolution of Group:

This Item 9 is not applicable.

Item 10. Certification:

Page 9 of 12 Pages

By signing below each of the Reporting Persons certifies that, to the best of their knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

Page 10 of 12 Pages

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, the undersigned certify that the information set forth in this statement is true, complete and correct.

Date: February 14, 2007

MAGNETAR INVESTMENT MANAGEMENT, LLC

By: Magnetar Capital Partners LP
As Sole Member

By: /s/ Alec N. Litowitz

Name: Alec N. Litowitz
Title: Manager of Supernova Management
LLC, as General Partner of
Magnetar Capital Partners LP

Date: February 14, 2007

MAGNETAR CAPITAL PARTNERS LP

By: /s/ Alec N. Litowitz

Name: Alec N. Litowitz
Title: Manager of Supernova Management
LLC, as General Partner of
Magnetar Capital Partners LP

Date: February 14, 2007

SUPERNOVA MANAGEMENT LLC

By: /s/ Alec N. Litowitz

Name: Alec N. Litowitz
Title: Manager

Date: February 14, 2007

ALEC N. LITOWITZ

/s/ Alec N. Litowitz

Page 11 of 12 Pages

