**HOLOGIC INC** Form SC 13G/A February 11, 2005

#### SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13G (RULE 13d - 102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO 13d-1(b), (c) AND (d) AND AMENDMENTS THERETO FILED PURSUANT TO 13d

(Amendment No.1) *
Hologic Inc.
(Name of Issuer)
Common Stock
(Title of Class of Securities)
436440101
(CUSIP Number)
December 31, 2004
(Date of Event which Requires Filing of this Statement)
Check the appropriate box to designate the rule pursuant to which this Schedul is filed:
[ ] Rule 13d-1(b) [x] Rule 13d-1(c) [ ] Rule 13d-1(d)
*The remainder of this cover page shall be filled out for a reporting person' initial filing on this form with respect to the subject class of securities, an

S for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on 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 the Following Pages)

1. NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Amaranth LLC

- 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*
  - (a) [x]
  - (b) [ ]

3. SEC USE ONLY 4. CITIZENSHIP OR PLACE OF ORGANIZATION Cayman Islands NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH: 5. SOLE VOTING POWER 6. SHARED VOTING POWER 1,799,675 7. SOLE DISPOSITIVE POWER 0 8. SHARED DISPOSITIVE POWER 1,799,675 9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON See 6 and 8 above. 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\* [ ] 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 8.6% 12. TYPE OF REPORTING PERSON\* CO \*SEE INSTRUCTIONS BEFORE FILLING OUT! 1. NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY) Amaranth Global Equities Master Fund Limited 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\* (a) [x] (b) [ ] 3. SEC USE ONLY 4. CITIZENSHIP OR PLACE OF ORGANIZATION Cayman Islands NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:

5. SOLE VOTING POWER

0

6. SHARED VOTING POWER

1,799,675

7. SOLE DISPOSITIVE POWER

0

SHARED DISPOSITIVE POWER 8.

1,799,675

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

See 6 and 8 above.

- CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\* [ ]
- PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 11.

8.6%

12. TYPE OF REPORTING PERSON\*

CO

\*SEE INSTRUCTIONS BEFORE FILLING OUT!

NAMES OF REPORTING PERSONS 1.

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Amaranth Advisors L.L.C.

- 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*
  - (a) [x]
  - (b) [ ]
- SEC USE ONLY 3.
- CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:

SOLE VOTING POWER

SHARED VOTING POWER

1,799,675

7. SOLE DISPOSITIVE POWER

0

8. SHARED DISPOSITIVE POWER

1,799,675

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

See 6 and 8 above.

- 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\* [ ]
- 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

8.6%

12. TYPE OF REPORTING PERSON\*

ΙA

\*SEE INSTRUCTIONS BEFORE FILLING OUT!

1. NAMES OF REPORTING PERSONS
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Nicholas M. Maounis

- 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*
  - (a) [x]
  - (b) [ ]
- 3. SEC USE ONLY
- 4. CITIZENSHIP OR PLACE OF ORGANIZATION

United States

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH

5. SOLE VOTING POWER

0

6. SHARED VOTING POWER

1,799,675

7. SOLE DISPOSITIVE POWER

0

8. SHARED DISPOSITIVE POWER

1,799,675

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON See 6 and 8 above.

- 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\*
- 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

8.6%

12. TYPE OF REPORTING PERSON\*

IN, HC

\*SEE INSTRUCTIONS BEFORE FILLING OUT!

This statement is filed with respect to the shares of common stock, having \$.01 par value (the "Common Stock") of Hologic Inc. (the "Issuer") beneficially owned by Amaranth LLC and Amaranth Global Equities Master Fund Limited, both Cayman Islands exempted companies, Amaranth Advisors L.L.C. and Nicholas M. Maounis (collectively, the "Reporting Persons") as of February 7, 2005 and amends and supplements the Schedule 13G filed February 5, 2004 (the "Schedule 13G"). Except as set forth herein, the Schedule 13G is unmodified.

#### Item 4. Ownership.

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

(a) Amount beneficially owned:

1,799,675

(b) Percent of class:

8.6%

- (c) Number of shares as to which such person has:
  - (i) Sole power to vote or direct the vote

0

(ii) Shared power to vote or to direct the vote

See Item 4(a).

(iii) Sole power to dispose or to direct the disposition of

0

- (iv) Shared power to dispose or to direct the disposition of See Item  $4\,(a)$ .
- Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company.

See Exhibit A.

Item 10. Certification.

By signing below the undersigned certifies that, to the best of its 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.

#### SIGNATURES

After reasonable inquiry and to the best of its knowledge and belief, each of the undersigned certifies that the information with respect to it set forth in this statement is true, complete, and correct.

Dated: February 8, 2005

AMARANTH LLC, by Amaranth Advisors L.L.C., as Trading Advisor

By: /s/ Nicholas M. Maounis
----Nicholas M. Maounis,
Managing Member

AMARANTH GLOBAL EQUITIES MASTER FUND LIMITED,

By Amaranth Advisors L.L.C., as Investment Manager

By: /s/ Nicholas M. Maounis

Nicholas M. Maounis,

Managing Member

AMARANTH ADVISORS L.L.C.

By: /s/ Nicholas M. Maounis
----Nicholas M. Maounis,
Managing Member

NICHOLAS M. MAOUNIS

/s/ Nicholas M. Maounis
----Nicholas M. Maounis,

EXHIBIT A SUBSIDIARIES

Amaranth LLC and Amaranth Global Equities Master Fund Limited hold 1,780,000 of the Issuer's Common Stock beneficially owned by them through their joint subsidiary, Amaranth Helix Limited, a Cayman Islands company. Amaranth LLC holds the remaining 19,675 shares.