

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-A

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES
PURSUANT TO SECTION 12(b) OR (g) OF THE
SECURITIES EXCHANGE ACT OF 1934

CIENA Corporation

(Exact name of registrant as specified in its charter)

Delaware

23-2725311

(State or other jurisdiction of
incorporation or organization)

(I.R.S. Employer
Identification No.)

8530 Corridor Road, Savage, Maryland 20763

(Address of principal executive offices)

(Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class
to be so registered

Name of each exchange on which
each class is to be registered

None

Securities to be registered pursuant to Section 12(g) of the Act:

Common Stock, \$.01 par value per share

(Title of class)

ITEM 1. DESCRIPTION OF REGISTRANT'S SECURITIES TO BE REGISTERED.

The description of the Common Stock of the Registrant registered hereby is incorporated by reference to the description of the Registrant's capital stock set forth under the heading "Description of Capital Stock" in the Registrant's Registration Statement on Form S-1 (SEC File No. 333-17729), as filed with the Securities and Exchange Commission on December 12, 1996, any amendments to such Registration Statement filed subsequently thereto (the "Form S-1") and any form of prospectus filed pursuant to Rule 424(b) under the Securities Act of 1933, as amended.

ITEM 2. EXHIBITS.

The following exhibits are filed as part of this Registration Statement:

1. Certificate of Amendment to Third Restated Certificate of Incorporation.*
 2. Third Restated Certificate of Incorporation.*
 3. Amended and Restated Bylaws of the Registrant.*
 3. Form of Common Stock certificate of the Registrant.*
- * Incorporated by reference to the Registrant's Registration Statement on Form S-1 (SEC File No. 333-17729).

SIGNATURES

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

CIENA CORPORATION

Date: January 13, 1997

By: /s/ Patrick H. Nettles

Patrick H. Nettles
President, Chief Executive Officer and
Director

EXHIBIT INDEX

Exhibit No. -----	Description -----	Page -----
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3.2	Third Restated Certificate of Incorporation	*
3.3	Amended and Restated Bylaws of the Registrant	*
4.1	Form of Common Stock certificate of the Registrant	*
*	Incorporated by reference to the Registration's Registration Statement on Form S-1 (SEC File No. 333-17729).	