UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM 8-A

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

APPLIED OPTOELECTRONICS, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware

76-0533927

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

13115 Jess Pirtle Blvd.
Sugar Land, Texas
(Address of principal executive offices)

(State of incorporation or organization)

77478

(Zip Code)

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A. (c), check the following box. x

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A. (d), check the following box. o

Securities Act registration statement file number to which this form relates: 333-190591

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

Common Stock, par value \$0.001 per share

The NASDAQ Stock Market LLC

Securities to be registered pursuant to Section 12(g) of the Act: None.

Item 1. Description of Registrant's Securities to be Registered

The information required by this Item 1 is incorporated herein by reference to the information set forth under the caption "Description of Capital Stock" in the Registration Statement on Form S-1 (File No. 333-190591) as originally filed by the Registrant with the Securities and Exchange Commission on August 13, 2013 and as subsequently amended (the "*Registration Statement*"). Such information will also appear in the prospectus subsequently filed by the Registrant with the Securities and Exchange Commission pursuant to Rule 424(b) under the Securities Act of 1933, as amended, and such prospectus is incorporated herein by reference.

Item 2. Exhibits

In accordance with the "Instructions as to Exhibits" with respect to Form 8-A, no exhibits are required to be filed as part of this registration statement because no other securities of the Registrant are registered on The NASDAQ Stock Market LLC and the securities registered hereby are not being registered pursuant to Section 12(g) of the Securities Exchange Act of 1934, as amended.

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SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

Date: September 23, 2013 APPLIED OPTOELECTRONICS, INC.

By: /s/ Chih-Hsiang (Thompson) Lin