



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

June 27, 2013

Via E-mail

Thomas Gutierrez
President and Chief Executive Officer
GT Advanced Technologies Inc.
243 Daniel Webster Highway
Merrimack, NH 03054

**Re: GT Advanced Technologies Inc.
Registration Statement on Form S-3
Filed June 7, 2013
File No. 333-189170**

Dear Mr. Gutierrez:

We have limited our review of your registration statement to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. Where you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Our Company, page 2

1. We refer to your disclosures on pages 5, 27, 28 and 41 of your Form 10-Q for the period ended March 30, 2013. Please revise your disclosure to highlight significant developments in your industries, including demand for your products and capacity in applicable end markets. Please also tell us what consideration you have given to providing summary disclosure concerning your results and financial position, including, without limitation, discussion of net losses in recent periods, recent debt amendments and increased interest expense.

Selling Securityholders, page 15

2. Your disclosure indicates that selling security holders may offer securities pursuant to the prospectus. It is not clear, however, whether the initial offering transactions in which the selling security holders purchased the securities were completed, or that the securities

have been issued and are outstanding. Please revise to describe more specifically the initial offering transaction or transactions in which the securities were sold to the selling security holders. Please refer to Rule 430B(b)(2). Also include a separate section in the fee table for the securities offered by the selling security holders.

Incorporation of Certain Documents by Reference, page 17

3. Please revise to incorporate by reference your June 7, 2013 Form 8-K.

Exhibit 5.1

4. Clauses (ii) and (iii) on page 1 limit counsel's opinion to debt securities and warrants that are convertible into your common stock; however, footnote 1 to the fee table appears to indicate that the registration statement includes debt securities and warrants that convert into common stock as well as other types of securities. Also, the opinion does not address the units. Please file an opinion that addresses all securities identified in the fee table.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed

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public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Joseph McCann at (202) 551-6262 or me at (202) 551-3617 with any questions.

Sincerely,

/s/ Russell Mancuso

Russell Mancuso
Branch Chief

cc (via email): Christopher D. Comeau, Esq. – Ropes & Gray LLP