

October 5, 2012

VIA EDGAR

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549-3720

Attention: Amanda Ravitz
Praveen Kartholy
Geoffrey Kruczek
Jay Mumford
Gary Todd

**Re: Ambarella, Inc.
Registration Statement on Form S-1
Amendment No. 4 filed September 26, 2012
File No. 333-174838**

Ladies and Gentlemen:

On behalf of Ambarella, Inc. (the "**Company**"), we submit this letter in response to comments from the staff (the "**Staff**") of the Securities and Exchange Commission (the "**Commission**") received by letter dated October 4, 2012, relating to the Company's Amendment No. 4 to Form S-1 Registration Statement (File No. 333-174838) submitted to the Commission on September 26, 2012 (the "**Registration Statement**").

The Company is concurrently submitting to the Commission via EDGAR Amendment No. 5 to the Registration Statement ("**Amendment No. 5**"). For the convenience of the Staff, we will provide 'hard' copies, complete with exhibits, of Amendment No. 5 as well.

In this letter, we have recited the comments from the Staff in italicized, bold type and have followed each comment with the Company's response.

Exhibit 1.1

- 1. Please ensure the document you file as Exhibit 1.1 is complete. We note, for example, Annexes I-III are blank.***

In response to the Staff's comment, Exhibit 1.1 has been revised as discussed with the Staff so that Exhibit 1.1 is complete as filed.

Exhibit 5.1

2. ***We note your response to prior comment 3; however, this exhibit continues to list only a limited number of documents reviewed by counsel in forming its opinion. Please ask counsel to file a revised opinion that does not contain such a limitation.***

In response to the Staff's comment, Maples & Calder, Cayman Islands counsel to the Company, has revised its opinion attached as Exhibit 5.1 to note that they have reviewed such other documents as they deem necessary in order to render their opinion.

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Please direct your questions or comments regarding the Company's responses or Amendment No. 5 to me at (650) 320-4693. Thank you for your assistance.

Sincerely,

WILSON SONSINI GOODRICH & ROSATI
Professional Corporation

/s/ Aaron J. Alter

Aaron J. Alter

Enclosures

cc (w/encl.):

Feng-Ming Wang
Michael Morehead, Esq.
Ambarella, Inc.

Larry W. Sonsini, Esq.
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