



IRIDEX

1212 Terra Bella Avenue
Mountain View, CA 94043-1824 USA

January 21, 2011

Via EDGAR and Overnight Courier

Mr. Kevin Kuhar, Staff Accountant
Mr. Martin James, Senior Assistant Chief Accountant
Division of Corporation Finance
United States Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Re: IRIDEX Corporation
Form 10-K for the Fiscal Year Ended January 2, 2010
Filed March 31, 2010
Definitive Proxy Statement on Schedule 14A filed on May 7, 2010
File No. 000-27598

Dear Messrs. Kuhar and James:

On behalf of IRIDEX Corporation (“we,” the “**Company**,” or “**IRIDEX**”), we submit this letter in response to comments from the staff of the Securities and Exchange Commission (the “**Staff**”) received by letter dated December 30, 2010, relating to the Company’s Form 10-K for the fiscal year ended January 2, 2010 (the “**Form 10-K**”) and definitive proxy statement on Schedule 14A filed on May 7, 2010 (the “**Proxy Statement**”).

In this letter, we have recited the comments from the Staff in italicized type and have followed each comment with the Company’s response. Capitalized terms used but not defined herein shall have the meanings ascribed thereto in the Form 10-K and the Proxy Statement.

Form 10-K for the Fiscal Year Ended January 2, 2010

Cover Page

1. *We refer to your disclosure under “Documents Incorporated by Reference” and on page 62 that you sought to incorporate by reference to your definitive proxy statement the information required by Part III of Form 10-K. However, we note that you did not file your definitive proxy statement within 120 days of your fiscal year end. Refer to Instruction G(3) to Form 10-K. Please advise how you have complied with the disclosure requirements of Part III of Form 10-K.*

Response:

The Company respectfully acknowledges the Staff's comment and will file an amendment to the Company's Form 10-K for the fiscal year ended January 2, 2010 (the "**10-K Amendment**") that will satisfy the disclosure requirements of Part III of Form 10-K. A draft of the 10-K Amendment will be supplementally provided to the Staff for its review. The Company intended to timely file the Proxy in order to allow certain information contained therein to be incorporated by reference into the Form 10-K and inadvertently failed to do so.

Item 8. Financial Statements and Supplementary Data, page 37

Note 10. Stockholders' Equity, page 52

2. *We note from your disclosure that the holders of the Series A preferred stock have certain registration rights as further discussed in your disclosure on page 53. We note that during 2009 the holders of the Series A preferred stock and the registrant agreed to amend the Form S-3 registration rights. In consideration for extending the period during which you are not required to file a registration statement, you issued the holders of Series A preferred stock warrants to purchase an aggregate of 20,000 shares of Common Stock at an exercise price of \$0.01 per share. Based on your disclosure, it is not completely clear what you are representing by your statement "The agreement changed the clause requiring the Company to file a Form S-3 registration statement within 90 days of becoming eligible to a right to request the Company file a Form S-3 registration statement any time after June 30, 2009." In this regard, please address the following:*

- *Fully explain to us the terms of the amended registration rights agreement.*
- *Specifically, tell us the triggering events and dates, which will require you to file a registration statement, and the grace period for that registration statement to be declared effective by the Securities and Exchange Commission (SEC).*
- *Tell us if the amended registration rights agreement requires you to transfer consideration to the counterparty if the registration statement is not filed, declared effective or if effectiveness of the registration statement is not maintained.*
- *If applicable, please provide us with the disclosures as outlined in ASC FASB 825-20-50-1 and 50-2, and tell us how you considered ASC FASB 825-20-25, 825 -20-30, and 825-20-35 in your accounting.*

Response:

On August 31, 2007, the Company entered into a Securities Purchase Agreement with BlueLine Capital Partners ("**BlueLine**") pursuant to which the Company sold to BlueLine units (the "**Units**"),

consisting of one share of the Company's Series A Preferred Stock and one warrant to purchase 1.2 shares of the Company's Common Stock. In connection with this transaction the Company issued an aggregate of 500,000 Units at \$10.00 per Unit, resulting in the issuance of 500,000 shares of Series A Preferred Stock, convertible into 1 million shares of Common Stock pursuant to the provisions of the Certificate of Designation filed by the Company in connection with the sale, and warrants to purchase an aggregate of 600,000 shares Common Stock at an exercise price of \$0.01 per share.

In connection with the sale of the Units, the Company and BlueLine also entered into an Investor Rights Agreement, dated as of August 31, 2007 (the "**Rights Agreement**"), pursuant to which the Company granted BlueLine certain registration rights.

The Company became eligible to file a Form S-3 registration statement on November 21, 2008 and, pursuant to the terms of the Rights Agreement, was automatically required to file a Form S-3 registration statement upon becoming eligible to do so (the "**S-3 Filing Requirement**"). However, neither the Company nor BlueLine believed that it was in the best interests of the Company to file a registration statement at such time. As a result, BlueLine agreed to waive the S-3 Filing Requirement and the parties entered into an amendment to the Rights Agreement dated March 31, 2009, (the "**Amendment**"). Pursuant to the Amendment, the parties agreed that the Company would not be obligated to file a registration statement on Form S-3 until such time, on or after June 30, 2009, as the holders of 60% of the Registrable Securities (as defined below) request such registration in writing. In order to induce BlueLine to enter into the Amendment and to waive any liquidated damages or other penalties relating to the Company's failure to comply with the S-3 Filing Requirement, the Company issued to BlueLine warrants to purchase an aggregate of 20,000 shares of the Company's Common Stock at an exercise price of \$0.01 per share (the "**Amendment Warrants**"). The Amendment also amended the Investor Rights Agreement to include the shares of Common Stock issuable upon exercise of the Amendment Warrants in the shares eligible for registration under the Investor Rights Agreement as amended (the "**Amended Rights Agreement**").

In accordance with the Amended Rights Agreement, the Company may be required to register shares of the Series A Preferred Stock, including shares underlying the Series A Preferred Stock warrants and shares of common stock that are issued upon conversion of shares of Series A Preferred Stock (the "**Registrable Securities**"), through (i) a demand registration, (ii) a piggyback registration or (iii) an S-3 registration, the triggering conditions for each of which are described below.

Demand Registration:

At any time after February 29, 2008, the holders of at least 60% of the Registrable Securities may request in writing (a "**Demand Request**") that the Company register all or part of the Registrable Securities. The Company must then promptly notify all other holders of Registrable Securities of the Demand Request and file a registration statement covering such Registrable Securities, including any Registrable Securities that are requested to be included within 30 days of the Company's notice, within 90 days of receipt of the Demand Request, provided that the Registrable Securities may be cut back on a pro rata basis among the holders thereof if so determined by the underwriters of the offering. The Company must use its reasonable best efforts to cause the registration statement (the "**Demand Registration Statement**") to become effective within 120 days of receipt of the Demand Request.

Piggyback Registration:

If the Company determines to file a registration statement with the SEC covering any of its equity securities (other than on Form S-4 or Form S-8 relating to securities being issued in connection with a business acquisition or an employee benefits plan) prior to filing a Demand Registration Statement or an S-3 Registration Statement (as defined below), the Company will send written notice to each holder of Registrable Securities of its determination, and each such holder will have eight business days thereafter to request in writing that the Company register all or a portion of the Registrable Securities held by such holder. The Company will include the Registrable Securities so requested for inclusion in its registration statement, provided that (i) the Registrable Securities may be fully cut back if so determined by the Company and the managing underwriters of the offering and (ii) prior to the effective date of the registration statement, the Company may determine to delay or forgo the registration for any reason.

Shelf Registration:

The Company is required to file a “shelf” registration statement on Form S-3 (an “**S-3 Registration Statement**”) if it receives a written request on or after July 30, 2009 for such registration (an “**S-3 Request**”) from the holders of at least 60% of the Registrable Securities. The Company must file the S-3 Registration Statement promptly, but in no event more than 90 days following its receipt of the S-3 Request (the “**S-3 Deadline**”). The Company agreed to use its reasonable best efforts to cause the S-3 Registration Statement to be declared effective by the SEC as soon as practicable, but no later than the S-3 Deadline, and must keep the registration statement continuously effective until the earlier of (x) the date when all the Registrable Securities have been sold or (y) with respect to a holder of Registrable Securities, the date when all Registrable Securities held by such holder may be sold without restriction under Rule 144 as determined by the Company’s counsel pursuant to a written opinion.

Liquidated Damages for Failure to Comply with Registration Obligations

The Company is required to pay partial liquidated damages as further described below if any of the following events occur (each, an “**Event**”):

- (i) a Demand Registration Statement or S-3 Registration Statement (each, a “**Registration Statement**”) is not filed and declared effective within 90 days of the date the Company receives a Demand Request or S-3 Request;
- (ii) the Company does not file a request for acceleration in accordance with Rule 461 of the Securities Act of 1933 (the “**Act**”) within five days of being notified by the SEC that a Registration Statement will not be reviewed or subjected to further review;

- (iii) the Staff notifies the Company that a pre-effective amendment is required or sends comments on a Registration Statement to the Company, and the Company does not file such amendment or otherwise respond in writing to the Staff's comments within 15 calendar days after receipt of the Staff's notice or comments; and
- (iv) if a Registration Statement ceases to remain continuously effective as to all Registrable Securities for which it is required to be effective, or the holders of the Registrable Securities are not permitted to use the prospectus therein to resell the Registrable Securities for more than 15 consecutive calendar days or more than 30 calendar days during any 12-month period.

Upon the occurrence of an Event, the Company must pay to each holder of Registrable Securities partial liquidated damages in cash in an amount equal to 1% of the aggregate purchase price paid by such holder for the Series A preferred stock on the date of any Event and on each monthly anniversary of such Event until the applicable Event is cured; provided, that the maximum amount of liquidated damages the Company is obligated to pay under the Amended Rights Agreement shall not exceed 12% of the aggregate purchase price of all Registrable Securities. If the Company fails to pay the full amount of such damages within seven days after the date such damages become payable, the Company must pay interest on the unpaid amount at a rate of 18% per annum (or such lesser maximum amount that is permitted by applicable law), accruing daily until the full amount owed, including interest, is paid.

To the extent that the registration of any or all of the Registrable Securities is prohibited under Rule 415 of the Act in the opinion of the SEC (the "**Non-Registered Shares**"), the liquidated damages described above shall not apply to the Non-Registered Shares, and the Company will file additional Registration Statements to register such Non-Registered Shares until all Registrable Securities have been registered.

Disclosure requirements:

In accordance with ASC FASB 825-20-25 the Company determined that the obligation to file a registration statement as outlined above, together with the corresponding liquidated damages for failure to comply with such registration obligations (contingent obligation), represent a registration payment arrangement which was treated as a separate unit of account. The Company deemed it improbable that the contingent obligation to transfer consideration would occur at the initial measurement date (ASC FASB 825-20-30), and so no liability was recorded when the Registrable Securities were sold. In the accounting period where it was determined that an Event had occurred and that liquidated damages became payable, the Company contacted BlueLine and obtained a waiver for its failure to file a registration statement and the resulting partial liquidated damages, and so it was not necessary to re-measure the contingent obligation to record an associated liability / expense (ASC FASB 825-20-35).

Upon further review of ASC FASB 825-20-51 and 50-2, the Company supplementally advises the Staff that the Company will include the following additional "Convertible Preferred Stock" disclosure as part of Note 10 ("Stockholders' Equity") of the Notes to Consolidated Financial Statements in the Company's future annual reports on Form 10-K:

"If the holders notify the Company of their decision to have a registration statement filed, the Company has 90 days to cause the registration statement to be declared effective. If the registration statement is not filed within 90 days, the Company is obligated to pay the holders partial liquidated damages until the registration statement is declared effective. The Company shall pay to each holder an amount in cash equal to 1% of the aggregate purchase price paid for the original units of Series A Preferred Stock and warrants to purchase common stock. The maximum aggregate damages payable to the holders is 12% of the aggregate purchase price paid by the holders. If the Company fails to pay any partial liquidated damages in full within seven days of the date payable, the Company will pay interest thereon at a rate of 18% per annum (or the lesser maximum amount that is permitted to be paid by applicable law) to the holders.

The maximum potential amount of consideration that the Company may have to pay the holders is \$600,000. The Company regards the probability of having to make this payment to the holders as remote and has therefore not recorded a liability to represent this potential obligation."

Item 9A(T) Controls and Procedures, page 61

Management's Report on Internal Control over Financial Reporting, page 61

3. *We note from page 61 that your management performed an assessment of your internal control over financial reporting as of January 2, 2010. However, you have not disclosed the conclusion of your management on the effectiveness of your internal control over financial reporting as required by Item 308T(a)(3) of Regulation S-K. Please amend your Form 10-K to provide the required management's conclusion that includes a clear and definite statement as to whether your internal control over financial reporting was effective or was not effective as of January 2, 2010.*
4. *In addition, we note that you include management's conclusion on the effectiveness of your disclosure controls and procedures in this section. Please note that the requirement of Item 308T of Regulation S-K is separate from the requirement of Item 307 of Regulation S-K. Item 307 of Regulation S-K requires you to disclose the conclusion of your principle executive and principle financial officers regarding the effectiveness of your disclosure controls and procedures, while Item 308T of Regulation S-K requires you to provide management's annual report on internal control over financial reporting that includes management's assessment of the effectiveness of the registrant's internal control over financial reporting as of the end of your most recent fiscal year, including a statement as to whether or not internal control over financial reporting is effective. To avoid investor confusion, in your amended Form 10-K, please revise the section to include the disclosure related to management's conclusion on the effectiveness of your disclosure controls and procedures in the sub-section entitled "Evaluation of Disclosure Controls and Procedures."*

Response:

As the Staff has requested, we will include in the 10-K Amendment a revised Item 9A(T) of the Form 10-K to provide a clear and definite statement of management's conclusion regarding the effectiveness of the Company's internal control over financial reporting and to clearly separate the disclosure related to management's conclusion on the effectiveness of our disclosure controls and procedures. The revised Item 9A(T) will read as follows:

"Item 9A(T). Controls and Procedures

Evaluation of Disclosure Controls and Procedures.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 under the Exchange Act. In designing and evaluating our disclosure controls and procedures, management recognizes that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any disclosure controls and procedures also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Based on management's evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of January 2, 2010, our disclosure controls and procedures are designed at a reasonable assurance level and are effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) of the Exchange Act. Because of its inherent limitations, internal control over financial reporting may not

prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of January 2, 2010 using the criteria for effective internal control over financial reporting as described in "Internal Control—Integrated Framework," issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on their evaluation as of the end of the period covered by this Annual Report on Form 10-K, our Chief Executive Officer and Chief Financial Officer have concluded that our internal control over financial reporting was effective as of January 2, 2010.

This Annual Report on Form 10-K does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by our independent registered public accounting firm pursuant to temporary rules of the SEC that permit us to provide only management's report in this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting.

There were no changes in our internal control over financial reporting that occurred during the fourth quarter of fiscal year 2009 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting."

Definitive Proxy Statement on Schedule 14A filed on May 7, 2010

Process for Recommending Candidates for Election to the Board of Directors, page 10

5. *We note your disclosure under this section that you "seek independent directors, who represent a mix of backgrounds and experiences" and that the Nominating and Governance Committee considers diversity when evaluating and identifying director nominees. Please tell us and revise your future filings to explain in greater detail how the Committee considers diversity in evaluating director nominees and to clarify whether the Committee has a policy with regard to the consideration of diversity in identifying director nominees. If the committee does have such a policy, please tell us and expand your disclosure in future filings to describe how the policy is implemented and how the committee assesses the policy's effectiveness. Refer to Regulation S-K Item 407(c)(2)(vi), as revised by Release No. 33-9089 (Dec. 16, 2009).*

Response:

At this time, we do not have a formal policy or written criteria regarding diversity to select individuals for consideration in filling out our board positions. Our Nominating and Governance Committee, as detailed in its charter, determines and evaluates all of the criteria with respect to our directors, but has not established specific minimum qualifications for director candidates.

When identifying candidates, the Nominating and Governance Committee takes into account the present and future needs of the board and the committees. Diversity is one of many factors included in the Nominating and Corporate Governance Committee's evaluation of director candidates. We also consider many other factors, including the following, which are specified in the charter for our Nominating and Governance Committee: "issues of character, integrity, judgment, diversity, age, independence, skills, education, expertise, business acumen, business experience, length of service, understanding of the Company's business, other commitments and the like."

On page 10 of our definitive proxy statement we note that "In its evaluation of director candidates, including the members of the Board eligible for re-election, the Nominating and Governance Committee seeks to achieve a balance of knowledge, experience and capability on the Board and considers (1) the current size and composition of the Board and the needs of the Board and the respective committees of the Board, (2) such factors as issues of character, judgment, diversity, age, expertise, business experience, length of service, independence, other commitments, and (3) such other factors as the Nominating and Governance Committee may consider appropriate."

In future filings, we will clarify that the committee does not have a policy with respect to diversity and the committee's consideration of diversity for director nominees.

In connection with IRIDEX's responses to the Staff's comments, we acknowledge that we are responsible for the adequacy and accuracy of the disclosure in our filings with the Securities and Exchange Commission, Staff comments or changes to disclosure in response to Staff comments do not foreclose the Securities and Exchange Commission from taking any action with respect to such filings, and we may not assert Staff comments as a defense in any proceeding initiated by the Securities and Exchange Commission or any person under the federal securities laws of the United States.

Please acknowledge receipt of this letter by stamping the enclosed duplicate of this letter and returning it to the undersigned in the envelope provided.

We would like to discuss these comments and responses at your earliest convenience. Todd C. Carpenter, Esq. and Daphne M. Tam, Esq. of Wilson Sonsini Goodrich & Rosati, Professional Corporation can be reached at (650) 493-9300, and I may be reached at (650) 962-8848 ext. 3016.

Sincerely,

/s/ James H. Mackaness

James H. Mackaness
IRIDEX Corporation
Chief Financial Officer

cc: David J. Segre
Todd C. Carpenter
Daphne M. Tam