



DIVISION OF
CORPORATION FINANCE
Mail Stop 3030

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

January 25, 2011

VIA U.S. MAIL and FACSIMILE

Gregory H. Browne
Chief Financial Officer
Cyberonics, Inc.
100 Cyberonics Blvd.
Houston, TX 77058-2072

Re: Cyberonics, Inc.
Form 10-K for the fiscal year ended April 30, 2010
Filed June 17, 2010
Form 10-Q for the fiscal quarter ended October 29, 2010
Form 8-K dated November 22, 2010
File No. 000-19806

Dear Mr. Browne:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. 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 within ten business days by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the fiscal year ended April 30, 2010

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Significant Accounting Policies and Critical Accounting Estimates, page 33

1. We see that you reference your significant accounting policies discussed in the notes to the consolidated financial statements rather than providing a separate discussion of your critical accounting policies. In future filings please provide a discussion of your critical accounting policies including judgments and uncertainties affecting the application of those policies, and the likelihood that materially different amounts would be reported under different conditions or using different assumptions. For example, it appears that the accounting for stock based compensation, income taxes, tangible and intangible property, warranty liability, derivative contracts and revenue recognition may involve substantial estimates and judgment. Critical accounting policy disclosure should supplement, not duplicate, the description of accounting policies that are already disclosed in the notes to the financial statements. The disclosure should provide greater insight into the quality and variability of information regarding financial condition and operating performance. Refer to FR-72 and SEC Release No. 33-8040.

Non-GAAP Financial Measures, page 37

2. We reference the disclosure that you "also use" earnings before interest, other income (expense), the income tax provision, depreciation and amortization, non-cash equity compensation and gain on early extinguishment of Convertible Notes to arrive at adjusted non-GAAP EBITDA. In future filings please include a statement of the reasons why you believe that presentation of the non-GAAP financial measures provide useful information to investors regarding the registrant's financial condition and results of operations and a statement disclosing the additional purposes, if any, for which you use the non-GAAP financial measure, as required by Item 10(e)(1) of Regulation S-K. Please also clarify if you present adjusted non-GAAP EBITDA as a liquidity measure or a performance measure and how the presentation complies with Question 102.09 of the CD&I on Non-GAAP Financial Measures as updated on January 15, 2010.
3. As a related matter, we see that you reconcile adjusted non-GAAP EBITDA to income from operations. Please tell us how you considered Question 103.02 of the CD&I on Non-GAAP Financial Measures as updated on January 15, 2010 which states that EBITDA should be reconciled to net income as presented in the statement of operations under GAAP. Please note

that operating income would not be considered the most directly comparable GAAP financial measure because adjusted EBITDA includes adjustments for items that are not included in operating income.

Liquidity and Capital Resources - Operating Activities, page 38

4. We see that you experienced a \$5 million increase in accrued liabilities at April 30, 2010 compared to April 24, 2009, primarily due to an increase in payroll and other compensation. In future filings please provide a discussion of the underlying reasons for significant increases in operating assets and liabilities that impact cash flows from operating activities.
5. We see from page F-9 that you settled \$8.9 million of warranty liabilities during fiscal year 2010, which represented approximately 7% of outstanding liabilities. Please clarify if there were any significant cash expenditures or settlement that impacted your operations during the year. Future filings should also include enhanced disclosure of any significant changes in warranty provisions.

Consolidated Financial Statements

Note 1. Revenue Recognition, page F-8

6. We see that you recognize revenue when title and risk of loss transfers to the customers, providing there are no remaining performance obligations or matters requiring customer acceptance. Please tell us what performance obligations may impact the timing of revenue recognition and the type of matters that may require customer acceptance. Future filing should also include enhanced disclosure.

Note 10. Stock Incentive and Purchase Plans, page F-14

7. We see that you use implied volatility to estimate your expected volatility. Please tell us how the use of implied volatility is appropriate under the guidance set forth in FASB ASC 718-10-55-35 through 51 and SAB Topic 14D-1.

Note 12. Income Taxes, page F-21

8. We see that you released a substantial portion of your valuation allowance during fiscal year 2010 due to your evaluation of projected future taxable income. Please clarify how you analyzed the provisions of FASB ASC 740-10-30-16 through 25 in determining that it is more likely than not that the deferred tax assets will be fully utilized against future income taxes. In

future filings please highlight the specific changes in assumptions, business operations and environmental factors that resulted in the tax benefit being recorded in the current year.

Note 15. Litigation, page F-25

9. We reference from the disclosure here and on page 17 that you are currently named as a defendant in several product liability lawsuits in the U.S. and Europe. Please tell us where you have provided all of the disclosures required by FASB ASC 450-20-50-2 through 8, including the nature of the contingency and an estimate of the possible loss or range of loss or a statement that such an estimate cannot be made.

Form 10-Q for the fiscal quarter ended October 29, 2010

Note 3. Long-Term Investments, page 7

10. In future filings please disclose the conversion terms for your convertible debt securities.

Note 4. Fair Value Measurements, page 8

11. In future filings please disclose the level inputs and valuation technique(s) used to measure fair value of your convertible debt securities. Please refer to FASB ASC 820-10-50-2(e).

Contractual Obligations, page 27

12. We see from page 13 that you have an uncertain tax position contingency as of October 29, 2010 of \$6.2 million. Please tell us why you have not presented this amount as a contractual obligation or at a minimum disclosed the nature and amount in the footnotes to the contractual obligations table.

Form 8-K dated November 22, 2010

Exhibit 99.1

13. We see on the first page of your press release you highlight "EBITDA of \$15.4 million, an increase of 29%." We see from the reconciliation on the last page of the press release that the previously discussed "EBITDA" actually represents Adjusted EBITDA, which adds back the effect of stock based compensation. In future press releases, please consistently label any non-GAAP measure throughout the release as "adjusted" or "non-GAAP."

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 Exchange Act of 1934 and all applicable Exchange 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.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Kristin Lochhead at (202) 551-3664 or me at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. If you have any other questions, please do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Brian Cascio
Accounting Branch Chief