

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

August 2, 2010

Mr. Dale Schnittjer Teledyne Technologies Inc. 1049 Camino Dos Rios Thousand Oaks, CA 91360-2362

Re: Teledyne Technologies Inc.

Form 10-K for the fiscal year ended January 3, 2010

Filed March 2, 2010

Definitive Proxy Statement

Filed March 8, 2010

Form 10-Q for the quarterly period April 4, 2010

Filed May 7, 2010 File No. 1-15295

Dear Mr. Schnittjer:

We have reviewed your response letter dated July 23, 2010 and have the following additional comments. If you disagree, we will consider your explanation as to why our comment is inapplicable. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Form 10-K for the fiscal year ended January 3, 2010

Note 13. Business Segments, page 99

1. We have reviewed your response to our prior comment eight. We note your statement that the business activities comprising each operating segment have similar characteristics, product characteristics and customer bases. Please provide us with a more specific and comprehensive discussion regarding how you have determined that these business activities do not meet the definition of an operating segment. In this regard, please ensure you address how you have considered each of the product lines in your Electronics and Communications segment. Please also provide us with the reports of these business activities for the fiscal year ended January 3, 2010 and the most recent interim period which are reviewed by

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your chief operating decision maker. These reports should reflect actual results and be at the lowest level of detail provided to the CODM.

<u>Definitive Proxy Statement</u> <u>Annual Incentive Plan, page 26</u>

- 2. We note your response to comment 12 of our letter dated June 30, 2010, however it is still unclear how you determined that the size of the pool that funds the awards under the AIP would not exceed 11% of operating profit. Please advise.
- 3. We note your response to comment 14 of our letter dated June 30, 2010. You provide a list of the factors that the Personnel and Compensation Committee have considered "in the past" when determining whether to make an upward discretionary adjustment. Further, you acknowledge that these factors "vary from year to year among executives." Please disclose the specific factors considered by the Personnel and Compensation Committee in determining whether each named executive officer was granted an upward discretionary adjustment to the 2009 AIP award. See Item 402(b)(2)(v)-(vi) of Regulation S-K.

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As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested supplemental information. Detailed response letters greatly facilitate our review. Please file your response letter on EDGAR. Please understand that we may have additional comments after reviewing your responses to our comments.

You may contact Tricia Armelin at (202) 551-3747 or me at (202) 551-3768 if you have questions regarding comments on the financial statements and related matters. Please contact Erin Jaskot at (202) 551-3442 or Jay Ingram at (202) 551-3397 with any other questions.

Sincerely,

John Cash Accounting Branch Chief