



DIVISION OF
CORPORATION FINANCE

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

May 2, 2012

Via E-mail

Mr. Mark P. de Raad
Executive Vice President
and Chief Financial Officer
Masimo Corporation
40 Parker
Irvine, California 92618

RE: **Masimo Corporation**
Form 10-K for Fiscal Year Ended December 31, 2011
Filed February 17, 2012
File No. 001-33642

Dear Mr. de Raad:

We have completed our review of your filing. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or 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. 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 rules require.

Sincerely,

/s/ Martin James

Martin James
Senior Assistant Chief Accountant