



DIVISION OF
CORPORATION FINANCE

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

September 17, 2010

Andy Moring
Executive Vice President — Finance and Chief Financial Officer
Mattson Technology, Inc.
47131 Bayside Parkway
Fremont, California 94538

Re: Mattson Technology, Inc.
Form 10-K for the fiscal year ended December 31, 2009
File No. 000-24838

Dear Mr. Moring:

We have completed our review of your filing and do not have any further comments at this time.

Sincerely,

Martin James
Senior Assistant Chief Accountant
and Acting Assistant Director

cc (via facsimile): Tony Jeffries, Esq. — Wilson Sonsini Goodrich & Rosati P.C.