



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.