EXHIBIT 32.2

Certification of Chief Financial Officer
Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002

In connection with this Quarterly Report of Mattson Technology, Inc. (the Company) on Form 10-Q for the quarter ended July 3, 2011 as filed with the Securities and Exchange Commission on the date hereof (the Report), Andy Moring, as Chief Financial Officer of the Company, hereby certifies, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Date: August 5, 2011

/s/ ANDY MORING
Andy Moring
Executive Vice President – Finance and Chief Financial Officer