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 the Annual Report of Mattson Technology, Inc. (the Company) on Form 10-K for the year ended December 31, 2006 as filed with the Securities and Exchange Commission on the date hereof (the Report), William Turner, as Chief Financial Officer and Executive Vice President – Finance of the Company, hereby certifies, pursuant to 18 U.S.C. §. 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 results 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: March 2, 2007

/s/ WILLIAM TURNER
William Turner
Chief Financial Officer and Executive Vice President - Finance