

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 33-85272, 33-94972, 333-87715, 333-39129, 333-41954, 333-54010, 333-59859, 333-63156, 333-100094, 333-113683, 333-119799, 333-128529, and 333-130419) and the Registration Statements on Form S-3 (Nos. 333-111527 and 333-86072) of Mattson Technology, Inc. of our report dated March 6, 2009, relating to the financial statements, financial statement schedule and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

San Jose, California

March 6, 2009