

Prospectus Supplement dated December 6, 2004
(To Final Prospectus dated November 18, 2004 of Monolithic Power Systems, Inc.)

On November 29, 2004, Micrel, Incorporated (Micrel) filed an amended complaint in its lawsuit against us described beginning on pages 4, 10, 11, 15, 21, 29, 31, 41, 57, 65 and F-33 of the attached final prospectus. The amended complaint adds causes of action for alleged statutory and common law misappropriation of trade secrets, alleged breach of confidentiality agreements by Messrs. Hsing and Moyer (both former employees of Micrel), and alleged violation of California's Unfair Competition Law. The amended complaint also adds Messrs. Hsing and Moyer as defendants. Micrel's amended complaint adds requests for damages attributable to the alleged misappropriation of Micrel's trade secrets and alleged violation of the confidentiality agreements; for injunctive relief to prevent our future use of Micrel's alleged trade secrets; and for attorneys fees and costs. Because the litigation is in a very preliminary stage, it is difficult to predict how it will proceed or what the ultimate outcome will be. We have, however, conducted an initial review of the causes of action added by the amended complaint. Based on this initial review, we believe that we have meritorious defenses to all of the claims added by the amended complaint.

If we do not prevail against Micrel with respect to its new claims, we could be enjoined from selling our products into the U.S., either directly or indirectly, which would likely substantially reduce sales of the enjoined products. In addition, we could be ordered to pay substantial monetary damages, including restitution, disgorgement of profits and punitive damages, to Micrel. Any of these results would have a material and adverse effect on our results of operations for one or more quarters, and any injunction that prohibits us from selling significant products for any length of time would have an immediate and drastic negative effect on our business and results of operations. In addition, our industry is characterized by frequent litigation regarding patent, trade secret and other intellectual property rights. We may face additional lawsuits in the future, either by parties that have sued us in the past or by other parties. Any such litigation would likely present risks similar to those presented by our existing litigation with O2, Linear, Microsemi and Micrel.