February 16, 2006

The Honorable Kevin Martin
Chairman
Federal Communications
Commission
445 12th Street, S.W.
Washington, D.C. 20554

The Honorable Michael Copps
Commissioner
Federal Communications
Commission
445 12th Street, S.W.
Washington, D.C. 20554

The Honorable Deborah Tate
Commissioner
Federal Communications
Commission
445 12th Street, S.W.
Washington, D.C. 20554

The Honorable Jonathan Adelstein
Commissioner
Federal Communications
Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: IB Docket No. 02-364 and ET Docket No. 00-258
Ex Parte Filing

Dear Chairman Martin and Commissioners:

It has recently come to the attention of Axcelis Technologies Incorporated that the Federal Communications Commission has before it a proposal which would effectively narrow the worldwide industrial, scientific and medical ("ISM") band at 2.4 GHz. In particular, we understand that certain wireless carriers are asking the FCC to impose out-of-band power limits at 2496-2500 MHz. It is our understanding that this proposal is prompted out of concern that ISM devices might cause interference with wireless communications devices.

I am writing at this time to express my company's strong opposition to the proposed standard with respect to industrial equipment of the type sold by Axcelis. If enacted, this proposal will have a negative impact on Axcelis, and more broadly, threatens to damage the utility of a wide variety of devices used only in manufacturing settings.

Axcelis Technologies engages in the design, manufacture, and sale of various types of capital equipment used in the fabrication of semiconductor chips. Of particular importance with respect to the proposed ISM band limitations, Axcelis makes systems that utilize microwave-excited ultraviolet lamps to produce high intensity, uniform wavelength radiation. These systems and apparatus enable numerous and diverse semiconductor manufacturing processes, such as the modification and photostabilization of photoresist materials, as well as the selective removal of materials from wafers for generating circuit patterns thereon. In addition, our microwave-based tools facilitate the removal of residual hardened materials and resists with a low degree of damage to the underlying substrate, and also make possible the excitation of gases and surfaces for enhancing reaction rates and

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processes. Our microwave tools are also used in memory erasure processes, and enable an innovative manufacturing process for curing low–K dielectrics which have become a key driver in the fabrication of next generation integrated circuits.

Imposing the bandwidth limitation proposal on industrial equipment used in manufacturing is completely unfounded. As indicated above, devices like Axcelis' are used in highly specialized and sophisticated processes, which are carried out not only within steel and concrete buildings, but typically within clean room environments sealed deep within the walls of these buildings. Further, the microwave-generating devices themselves are typically mounted in shielded enclosures as part of some much larger system. The general public is allowed nowhere near these processes, with access to the plants being very tightly controlled. Under these circumstances, the chances that any of our devices would cause interference are negligible, if not nil.

At the same time, the current proposal would entail significant costs for companies like Axcelis. Those costs would include re-testing all of our products for compliance with a new standard, and in the event a device did not meet the specification, research and development of new technologies. It would also entail added costs for producing two sets of products: one set designed to meet long-established worldwide standards for the 2.4 GHz band, and another set designed to meet a tighter standard applicable in the U.S. only. This would drive up our overall costs and make us less competitive on the world market, contrary to the policies of the present and earlier Administrations which have tried to foster the global competitiveness of U.S. manufacturers.

Finally, I note another concern: the lack of notice to the multitude of makers of industrial, scientific, and medical devices of all kinds. Axcelis learned of this proposal only recently, and merely by word of mouth. Frankly, we were stunned to learn of the proposal. To our knowledge, there has been no notice of proposed rulemaking alerting makers of industrial devices to this proposal. We respectfully submit that if the FCC is to consider a change as significant as that being proposed, it should publish a notice alerting the ISM community and seek input from all parties likely to be affected. Of course, the Commission need not reach this issue if it agrees with us that there is no interference threat from industrial devices.

In conclusion, we the Commission not to change the rules for industrial devices like ours.

A copy of this letter is being submitted electronically for the dockets mentioned above.

Sincerely,

Denis A. Robitaille
Vice President and Chief Patent Counsel

cc:

Marlene Dortch	Cathleen Massey
Fred Campbell	Thomas Stanley
Geraldine Matise	Uzoma Onyeije
Jordan Goldstein	Joel Taubenblatt
Julius Knapp	John Schauble
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John Guisti	Alan Scrime
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