

March 5, 2004

**VIA ELECTRONIC FILING**

Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, D.C. 20554

**Re: ET Dockets 98-153 and 02-380  
Interference to C-Band Earth Station Receivers  
by Ultra-Wideband Devices**

Dear Ms. Dortch:

On February 18, 2004, the Coalition of C-Band Constituents ("Coalition") submitted a study conducted by Alion Science and Technology ("Alion") concerning the potential for interference to C-band satellite earth stations from Ultra-Wideband ("UWB") devices.<sup>1</sup> The Alion study demonstrated that "the harm to C-band receivers by unlicensed UWB devices using the FCC's designated power levels is real, and the potential impact to C-band satellite services, especially television and radio transmission services, will be severe."<sup>2</sup> The conclusions set forth in the Alion study were based upon a number of variables, including (i) projections of the likely density of UWB devices in various regions across the country and (ii) the duty cycle of UWB devices under development by manufacturers.

The Coalition now has reason to believe that the density projections and assumptions concerning duty cycles were too conservative. On the same day that the Coalition submitted the Alion study, *Communications Daily* ran a story concerning the Intel Developer Forum at which Intel CEO Craig Barrett proclaimed that new technologies, including UWB, are "shaking the whole content industry to its roots."<sup>3</sup> Mr. Barrett also demonstrated a number of new consumer devices at the Intel Developer Forum, including "[a] high-resolution, LCOS (liquid crystal on silicon) projection display with plug-&-play 480 Mbps short-range connectivity using USB over UWB."<sup>4</sup>

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<sup>1</sup> See Letter from Coalition of C-Band Constituents to Marlene H. Dortch, Secretary of the Federal Communications Commission, dated February 18, 2004, and filed in ET Dockets 98-153 and 02-380.

<sup>2</sup> *Id.* at p. 6.

<sup>3</sup> *Communications Daily*, Vol. 24, No. 32 at p. 12 (Wednesday, February 18, 2004).

<sup>4</sup> *Id.*

Alereon, Inc., a leading UWB manufacturer, responded to the statements by Mr. Barrett at the Intel Developer Forum by noting that there are over 1 billion legacy wired USB connections in the world today.<sup>5</sup> Alereon continued:

As wireless USB begins to make inroads into the market segment for wired USB, we expect that UWB companies could ship hundreds of millions of units within a few years. Eventually, every PC, camera, printer, camcorder, flat panel television, and mobile phone could have wireless USB connections.<sup>6</sup>

In view of these announcements, density of UWB devices could be far higher than the Coalition projected. The Coalition assumed that UWB would be used in connection with cordless phones, security systems and wireless computing, among other uses. It is now apparent that UWB may connect dozens of devices in the home, not the handful assumed by the Coalition.

Likewise, these announcements show that the Coalition greatly underestimated the duty cycle of UWB devices. Computers, TVs, and the broad range of consumer devices that Intel and Alereon identify for UWB technology are in continuous operation, indicating a duty cycle approaching 100 percent, not the 20 percent used in the Alion study.

Accordingly, it now appears that the Alion study underestimated the potential for interference to C-band satellite earth stations from UWB devices, and the need for FCC action is even more pressing than the Coalition thought when it submitted the Alion study on February 18<sup>th</sup>. The Coalition will continue to explore these matters and will update the FCC in the near future.

Respectfully submitted,

*/s/ Benjamin Griffin*

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<sup>5</sup> Press Release, Alereon, dated February 18, 2004 (available at [www.alereon.com](http://www.alereon.com)).

<sup>6</sup> *Id.*

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