



February 5, 2002

Honorable Michael Powell  
Chairman  
Federal Communications Commission  
445 12th Street, S.W.  
Washington, DC 20554

Honorable Donald L. Evans  
Secretary of Commerce  
U.S. Department of Commerce  
14th & Constitution Avenue, N.W.  
Washington, DC 20230

Re: Ultra Wideband Devices ("UWB"); FCC Docket No. 98-153

Dear Chairman Powell and Secretary Evans:

The Satellite Communications Division (SCD) of the Telecommunications Industry Association (TIA) is writing to suggest a way forward on the subject proceeding with regard to the mounting concerns with potential interference from unlicensed UWB devices to licensed radio communication systems.<sup>1</sup> Recent proposals to restrict UWB intentional emissions to higher frequencies (e.g., above 6 GHz) would provide protection to the systems considered in the referenced documents. However, this would not necessarily reduce the probability of interference to acceptable levels for existing and future systems without additional restrictions on emissions below 6 GHz. In addition to avoiding spectrum below 6 GHz, measures may be necessary for protection of certain systems operating above 6 GHz, for example, satellite earth terminal receivers operating at higher frequencies and sensitive subscriber receivers in terrestrial point-to-multipoint networks operating in the LMDS frequency bands. In addition, Part 15 does not address harmful aggregate interference from networked UWB devices which may increase the noise floor for GPS and other defense and aviation safety-of-life systems.

We are concerned that the current Part 15 general emission limits do not adequately address the emission characteristics of the proposed UWB devices. The Part 15 average power limits need to be augmented by appropriate limits that consider the impact of the peak energy and bandwidth of UWB signal pulses on radio communications receivers. In support of this contention, we refer to recent

2500 Wilson Boulevard  
Suite 300  
Arlington, VA 22201-3834  
USA

+1.703.907.7700  
FAX +1.703.907.7727

analyses and measurements which demonstrate that UWB power levels as much as 30 to 35 dB below the current Part 15 Class B power limits would not adequately protect many radio communication receivers (See: Letter dated January 17,2002, to Secretary of Commerce Donald L. Evans and FCC Chairman Michael Powell, from AT&T Wireless, et al).

We strongly believe that, in addition to avoiding spectrum below 6 GHz, technical criteria needed to augment Part 15 for UWB devices can be developed in a technical committee of concerned parties. We therefore suggest that consideration be given to steering the unresolved technical concerns to an appropriate technical forum as has been done in certain other proceedings. For example, TIA provided a forum for resolution of frequency sharing concerns involving terrestrial and mobile-satellite systems at 2 GHz (See ET Docket 95-18, Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service, Second Report & Order and second Memorandum Opinion and Order, Para 78 refers to TIA's having published TSB-86...this Telecommunications Systems Bulletin (TSB) being the result of extensive cooperative study between FS microwave and MSS engineering experts. TSB-86 addresses protection of microwave receivers in 2165-2200 MHz from MSS downlink emissions).

TIA offers to support such a forum to address this current matter.

Respectfully submitted,

**TELECOMMUNICATIONS INDUSTRY ASSOCIATION**  
**SATELLITE COMMUNICATIONS DIVISION**



Gerald S. Rosenblatt  
Director, Technical Regulatory Affairs

2500 Wilson Blvd. Suite 300  
Arlington, VA 22201  
703.907.7722

CC:  
Commissioner Kathleen Abernathy  
Commissioner Michael Copps  
Commissioner Kevin Martin

<sup>1</sup> SCD/TIA filed comments on the subject proceeding with the FCC and NTIA on July 26, 2001. Substantial new technical concerns have been raised since that time, including in a joint letter dated January 17, 2002, from AT&T Wireless, Cingular Wireless, QUALCOMM, Sprint PCS and Verizon Wireless.



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