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January 30, 2002

Ms. Magalie Salas, Secretary  
Federal Communications Commission  
445 12th Street SW  
Washington DC 20554

**Re: ET Docket No. 98-153 -- Revision of Part 15 of the Commission's Rules Regarding  
Ultra-Wideband Transmission Systems  
*Ex Parte Communication***

Dear Ms. Salas:

Pursuant to Section 1.1206(a)(2) of the Commission's Rules, on behalf of XtremeSpectrum, Inc., I am filing this letter electronically to report oral ex parte communications in the above-referenced proceeding.<sup>1</sup>

Yesterday, Martin Rofheart and John McCorkle of XtremeSpectrum, Inc., Michele Farquhar, Esq., of Hogan & Hartson, L.L.P., Veronica Haggart, Esq., and I met with Julius Knapp, Michael Marcus, and Karen Rackley of the Office of Engineering and Technology.

We reiterated positions XtremeSpectrum has previously stated in this proceeding, with emphasis on the following:

- ***The Commission should permit peer-to-peer operation at greatly reduced emissions.*** Peer-to-peer operation is necessary to meet consumer needs for wireless connectivity. A peer-to-peer ban would virtually eliminate the market for consumer UWB, and would eliminate technology leverage that can greatly benefit public safety and other non-consumer applications. Recognizing that peer-to-peer operation potentially can occur outdoors, XtremeSpectrum supports subjecting it to greatly

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<sup>1</sup> XtremeSpectrum, with 67 employees, conducts research in ultra-wideband communications systems as its sole business. XtremeSpectrum intends to become a ultra-wideband communications manufacturer once the Commission authorizes certification of such systems. XtremeSpectrum takes no position on ultra-wideband radar applications.

reduced emissions levels -- far below those supported by technical analysis -- so as to move the rulemaking forward with a wide margin of extra safety.

- ***XtremeSpectrum's proposal protects all other spectrum users.*** XtremeSpectrum's proposed rule text (attached) fully resolves all interference issues raised by GPS, PCS, E-911, public safety, and all other systems documented in the proceeding.<sup>2</sup> XtremeSpectrum has recently filed separate statements documenting why UWB poses no threat to PCS, E-911, or public safety communications, respectively.
- ***XtremeSpectrum's proposal also protects all federal systems documented in the proceeding.*** XtremeSpectrum has been meeting with NTIA to explain how our emissions mask protects various federal systems.<sup>3</sup>
- ***XtremeSpectrum's modulation conforms to the proposed definition of ultra-wideband.*** We briefly discussed definitional issues as they apply to XtremeSpectrum's technology.
- ***Prompt action is essential.*** This proceeding began in September 1998 -- forty months ago. Prompt Commission action is needed if the UWB industry is to go forward.

If there are questions about this submission, please call me at the number above.

Respectfully submitted,

Mitchell Lazarus  
Counsel for XtremeSpectrum, Inc.

cc: Meeting participants

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<sup>2</sup> XtremeSpectrum indicated to OET that it does not plan to manufacture products under proposed paragraph (b)(1). We expect XtremeSpectrum products will conform to proposed paragraph (c)(1).

<sup>3</sup> We are filing a copy of our presentation to NTIA in this docket today, under separate cover.

**APPENDIX -- Proposed Rule Text**

**15. \_\_\_ Protection of other services.**

(a) An ultra-wideband communications device may not be mounted on an outdoor surface or support.

(b)(i) Under no circumstances may the emissions from an ultra-wideband communications device exceed these limits:

Frequency (MHz)	Field strength (microvolts/meter)	<i>[NOTE IN DRAFT]</i>
960-1574.92	125	<i>[Class B - 12 dB]</i>
1574.92-1575.92	45	<i>[Class B - 21 dB]</i>
1575.92-1990	125	<i>[Class B - 12 dB]</i>
above 1990	500	<i>[Class B]</i>

(ii) In the table above, the measurement distance is 3 meters. The tighter limit applies at band edges. Measurements shall be performed using a resolution bandwidth of 1 MHz.

(iii) In addition to the provisions of paragraph (b)(i), emissions limits in the band 1574.92-1575.92 MHz measured using a resolution bandwidth of 10 kHz shall not exceed 15 microvolts/meter measured at 3 meters. *[NOTE IN DRAFT: This represents a 10 dB additional attenuation for spectral lines in the GPS band.]*

(c) The provisions of this subsection apply to a battery-powered ultra-wideband device in communication with another battery-powered ultra-wideband device.

(i) The following emissions limits apply in lieu of those set out in section (b):

Frequency (MHz)	Field strength (microvolts/meter)	<i>[NOTE IN DRAFT]</i>
960-1610	10	<i>[Class B - 34 dB]</i>
1610-3100	80	<i>[Class B - 16 dB]</i>
3100-4200	160	<i>[Class B - 10 dB]</i>
above 4200	500	<i>[Class B]</i>

(ii) A battery-powered ultra-wideband device must be designed so that it cannot commence communicating with another battery-powered ultra-wideband device unless the user affirmatively initiates the transmission, as by pressing a button.

(iii) As an alternative to compliance with paragraphs (i) and (ii), a battery-powered ultra-wideband device can be made incapable of communicating with another battery-powered ultra-wideband device outdoors.

*[NOTE IN DRAFT: The last provision allows "full power" peer-to-peer operation where the device can establish it is indoors -- e.g., by detecting a nearby AC-powered unit.]*