Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Revision of Part 15 of the Commission's Rules	)	ET Docket No. 98-153
Regarding Ultra-Wideband Transmission	)	
Systems	)	

***Ex Parte* Comments of Delphi Corporation**

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April 13, 2004

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To: The Commission

Delphi Corporation ("Delphi") respectfully submits these *Ex Parte* Comments in the above-captioned proceeding as further clarification of the Ex Parte comments submitted March 25, 2004, in response to the Comments of the National Telecommunications and Information Administration ("NTIA") submitted on January 15, 2004 ("NTIA Comments"). Delphi has also submitted comments on the *Further Notice of Proposed Rulemaking* and has been an active participant in all of the UWB rules process.

Delphi wishes to expand and further explain its position on the proposed change to the non-UWB peak power requirement, Delphi agrees with both the Commission and the NTIA that rewording of paragraph 15.35(b) should be adopted. Non-UWB devices should not be forced to operate at power levels lower than UWB devices when located in frequency bands allocated for use.

Delphi is a leading supplier of automotive radar and has licensed four different radar devices in accordance with Part 15 non-UWB rules. Delphi licenses include operations at 10.5, 17, 24.125, and 76 GHz.

In order to achieve the goals of helping reduce the number and severity of automobile accidents, the automotive radar product must be affordable. Limiting use of automotive radar to high end luxury vehicles due to cost is in conflict with these goals. These products must be made available to all mid and low cost vehicle owners.

Delphi believes that lower frequency will result in lower cost radar products. Delphi believes that for shorter range applications antenna beam width requirements will allow use of longer wave lengths without forcing antennas to be size prohibitive. Therefore, if packaging size requirements can be met, lower frequency operation will result in lower cost and will increase availability to the general public.

Delphi is currently producing the Back-Up Aid (BUA) radar operating under non-UWB rules in the frequency band 16.2 to 17.7 GHz. The BUA system can help detect and alert the driver to an object behind the vehicle out to a distance of 5 m. This radar uses PNBPSK modulation which creates a spread spectrum signal that is contained within the allowed band width.

In this frequency band the emission limit is 500 uV/m @ 3 meters (-41.3dBm/MHz EIRP). In addition, the peak to average power limit of 20dB is also applied. For Delphi's design, the peak to average ratio is 27dB. This forces Delphi to reduce the average power by 7dB relative to the -41.3 dBm/MHz allowed limit. This power reduction can impact both performance and production yields. Changing the peak to average power limits as proposed for non-UWB devices would allow improved performance margin and production yields thereby reducing product cost.

Delphi is continuously looking for ways to design lower cost and more capable products for safety applications. Several radar based safety applications are currently in development that would utilize the 5.46 to 7.25 GHz band under a non-UWB operating license. These applications are based on short range radar as well as short-medium range multi-mode radar. Use of this band to achieve these low cost radar based safety products also requires the proposed change to the peak to average power ratio.

In order to achieve lower cost and increased market penetration to the general public for radar based automotive safety products, Delphi strongly urges the Commission to change the peak to average power requirement as proposed in the NPRM. At a minimum, Delphi urges that the proposed rule be adopted in the 16.2 to 17.7 GHz band where the BUA safety product currently exists as well as in the 5.46 to 7.25 GHz band where future automotive safety products are currently being investigated and developed.

Respectfully submitted,

By: __/s/_____

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