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September 13, 2011

Via Courier

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445-12th Street, S.W.
Washington, D.C. 20554

Re: Notice of Oral Ex Parte Presentation, ET Docket 11-90; And 10-28; Sections 15.35 and 15.253 of the Commission's Rules Regarding Operation of Automotive Radar Systems In the 76-77 GHz band and Fixed Use of Radar in the 76-77 GHz Band; Toyota Petition for Rule Making RM-11555.

Greetings.

On Tuesday, September 13, 2009, the undersigned, representing Robert Bosch, GmbH (Bosch), together with Dr. Michael Mahler of Bosch; Mr. Frank Gruson of Continental Corporation; Mr. Daniel Selke of Mercedes Benz USA; and Ari O. Fitzgerald, Esquire representing both Mercedes Benz USA and SARA (Strategic Automotive Radar Frequency Allocation) met with staff members of the Office of Engineering and Technology. A principal topic of discussion at that meeting was the above-referenced Docket proceeding addressing potential modifications in the Commission's Part 15 rules applicable to automotive radar operation, as per the *Notice of Proposed Rule Making*, FCC 11-29, released May 25, 2011.

Attending on behalf of the Commission's Office of Engineering and Technology were Chief Engineer Julius Knapp; Mr. Bruce Romano; Mr. Ira Keltz; Mr. Mark Settle; Ms. Karen Ansari; Geraldine Matise, Esquire; Mr. Aamer Zain; and Mr. Alan Stilwell.

The discussion is summarized as set forth in the attached memorandum, copies of which were delivered to the Commission's staff members at the meeting.

Questions concerning the foregoing ex parte statement or the attachment hereto should be addressed to the undersigned, counsel for Robert Bosch, GmbH.

Yours very truly,

Christopher D. Imlay

Attachment

ROBERT BOSCH, GmbH
FCC MEETING September 13, 2011
Topics and Main Points for Discussion

I. ET Dockets 11-90 and 10-28; RM-11555: Sections 15.35 and 15.253 of the Commission's Rules Regarding Operation of Automotive Radar Systems in the 76-77GHz Band and Fixed Use of Radar in the 76-77 GHz Band; Toyota Petition for Rule Making.

1. The "in-motion" and "not-in-motion" distinctions in the emission limits for vehicular radar systems are no longer appropriate due to the advent of sideward as well as rearward and forward looking radar systems. A single emission limit should apply in all directions. The current limitation in the Part 15 rules derived from a now-inapplicable concern about RF exposure and not from interference considerations, and the current MPE standard for RF exposure is independent of the motion status of the vehicle.

2. The 76-77 GHz band has developed worldwide as the standard band for long-range automotive radar, and in particular for forward looking and automatic braking systems. No study has concluded that there is compatibility between vehicular radars and unspecified fixed uses in the 76-77 GHz band. The incumbent fixed uses in Europe in that band are being phased out due to observed interference to vehicular radars from fixed facilities.

3. MOSARIM ("More Safety for All by Radar Interference Mitigation.") study was commenced January 1, 2010 and is expected to conclude by December 31, 2013. It is funded and led by the European automotive industry and the European Commission's Joint Research Centre (JRC). Among its tasks is the determination of interference potential from fixed 76-77 GHz installations to automotive radar sensors. Preliminary findings are that fixed 76-77 GHz installations result in significant interference to automotive radar sensors. A fixed facility with a +45 dBm EIRP is up to 75 dB above the noise floor of the 76-77 GHz automotive radar sensor which cannot be mitigated in the radar sensor.

4. ERA did not ask for unlimited fixed applications in this band. It proposed that the maximum power for fixed airport radars be no greater than present in-motion vehicular radar limits; professional installation only; and use only at FAA-recognized airports on a licensed basis, with a power flux density at any road illuminated by the radar of no greater than -57 dBW/m^2 (peak). The FCC proposal, without any stated technical basis, provides none of these safeguards.

5. It is timely to replace the present Part 15 rules for vehicular radars to harmonize them with ETSI limits (55 dBm; or a peak power density limit of approximately 279 μW/cm^2 at a distance of 3 meters from the radiator), and to make them applicable to stationary or in-motion vehicles. Any action on the ERA petition should incorporate the interference safeguards proposed by ERA.