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| To: Gabrielle OwenChairman ETSI\_TC\_ERM gabrielle.owen@agentschaptelecom.nlCC:Karl Löw, Chairman WGSE, karl.loew@bnetza.de John Falck, Chairman ETSI TG 34, jfalck@jfassociates.biz  |  |  |
|  | Date: 11 Dec 2013 |
| Source: SE PT 24 |
| Subject: Liaison statement to TC ERM concerning the relationship between antenna beam-width and transmitted power for RFID in the band 915 – 921 MHz  |
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Dear Gabrielle,

At its 74th meeting 9-11 December SE24 considered your letter asking for our opinion on the antenna beamwidth for RFID.

When preparing ECC Report 200, SE 24 mostly considered hot-spot scenarios where RFID interrogators transmitted at an average power level of 20 dBm due to the semi-shielded environment. Some calculations are conducted with 4 W e.r.p. using antennas with a beam-width of 90 degrees, as may be seen from Figure 29 of ECC Report 200. The results of the study with ER-GSM in the band 918-921 MHz showed that the level of interference caused by RFID was acceptable only when applying specific mitigation techniques for the protection of ER-GSM (see ETSI TS 102 902 V1.2.2 and ETSI TS 102 903 V1.1.1). The protection of military and some specialist government services in the band 915-921 MHz is only possible when adequate protection distances or other restriction can be enforced.

SE24 recognise that RFID is used across a wide range of applications, which may have very different technical requirements. At the meeting of SE24#74 delegates considered the proposal from TC-ERM to meet this need by associating the beam-width of RFID antennas with the transmitted power level. The analysis of the proposed relationship in the LS (ie) was considered reasonable and SE24 would support its use in the revised version of EN 302 208.

Best regards,

Ralf Kallenborn

Chairman SE PT 24

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