

Dataradio Inc.  
Montreal, Canada

**ENGINEERING STATEMENT  
OF CONSTANTIN PINTILEI**

The application consisting of the attached engineering exhibit and associated FCC form 731 has been prepared in support of a request for a Class II Permissive Change for EOTGPDB.

The certification EOTGPDB has been granted to Dataradio Inc for its Gemini mobile radio modem, which is comprised of the Dataradio COR Ltd. (DRL) Mobile Data Platform (MDP) 800 MHz Transceiver with the Dataradio Inc Gemini Modem. Dataradio Inc does the final assembly and markets the completed unit as Gemini/PD or GeminiG3. The EOTGPDB certificate has been granted for a 2-level FSK (DGMSK) and a 2<sup>N</sup>-level FSK (xRC4/8/16FSK) types of modulation scheme together with associated maximum deviation levels at various rates. The change consists of the addition of a 16-level FSK modulation scheme with 2 new proposed rates. This change involves the firmware only, with no change whatsoever occurring in the hardware.

EXISTING CONDITIONS

The unit utilized for these occupied bandwidth and mask-compliance measurements was a prototype built from production EOTGPDB with a beta (prototype) firmware. The transceiver operates on frequencies ranging from 806.000 MHz to 824.000 MHz. The frequency tolerance of the transceiver is .00015% or 1.5 parts per million as granted in EOTGPDB.

PROPOSED CONDITIONS

It is proposed to accept the request for the GEMINI, 806-824 MHz Transceiver/Modem/GPS for operation in the band of frequencies previously outlined. The applicant anticipates marketing the device for use in wireless transmission of data.

PERFORMANCE MEASUREMENTS

All measurements for Occupied Bandwidth and mask compliance as per 2.1043 (b)(2) were conducted in accordance with the Rules and Regulations Section 2.1041 and 2.1049 of Rules Service Co rev.2-163, Sep15, 2002. Equipment performance measurements were made in the engineering laboratory located at 5500 Royalmount ave, Montreal, Canada. All measurements were made and recorded by myself or under my direction. The performance measurements were made between Nov, 20 and Dec 2, 2002

CONCLUSION

Given the results of the measurements contained herein, the applicant requests to have appended the new emission designator 10K5F1D in the list of the Certificate EOTGPDB and to have accepted the use of 11K0F1D with a 16-FSK modulation following the Class II Permissive Change, as per FCC part 2.1043(b)(2).



09/29/2004

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