

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 EOTBDD4T881S2. All changes involved fall under Class II Permissive Change types and they are entirely detailed within the current report.

The certificate EOTBDD4T881S2 has been granted to Dataradio Inc. for the T881 Exciter module of the T88M-XY (see page 6 for part# description) 800 MHz base station manufactured by Tait Electronics Ltd. Dataradio Inc. buys this base station and uses it to build Paragon/PD, a wireless data base station. Dataradio Inc. modifies the exciter for a new proposed digital modulation scheme, does the final assembly and markets the finished Paragon/PD unit. The certificate EOTBDD4T881S2 was granted on 01/14/2002 for the following list of emission designators: 9K50, 11K0, 14K3 and 15K9F1D and 16K0F3E.

One Class II Permissive type of change is demonstrated with this filing. The change consists of the usage of 19.2 and 25.6 kbps speeds (4FSK) with a smaller deviation in the 821-824 MHz band. The smaller deviation permits signaling at the same baud rates already approved with mask G while fitting the requirements of Mask H. The receiver side was improved to upgrade the signal-to-noise (data sensitivity) performance. Only the deviation setting parameter of the operating firmware is being changed to produce smaller deviation. There are no hardware changes involved in either the radio or the modem/controller circuits. Also there are no changes in those modules of the firmware that control the transmitter.

EXISTING CONDITIONS

The unit utilized for these occupied bandwidth and mask-compliance measurements was a production sample built from EOTBDD4T881S2 with its firmware used to create the modulation scheme. The deviation parameter was set less such that the frequency spectrum fitted within the requirements of Mask H. The Exciter operates on frequencies ranging from 800.000 MHz to 870.000 MHz. The frequency tolerance of the exciter is .0001% or 1 parts per million and the output power is 5W as granted in EOTBDD4T881S2.

PROPOSED CONDITIONS

It is proposed to accept the Class II permissive change request for the EOTBDD4T881S2 certificate 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.2-154, Mar 15,2000. 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 Mar 14, 2002 and Mar 15,2002.

CONCLUSION

Given the results of the measurements contained herein, the applicant requests to be applied a Class II Permissive Change for the Certificate EOTBDD4T881S2 in order to market 19.2 and 25.6 kbps data rates in the frequency band of 866-869 MHz.



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Constantin Pintilei
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