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Response to FCC Comments RE: PWO2B5225 Booster Amplifier

The Operational Description has been revised to clarify the connection of the Inside Antenna to the amplifier. The revised Operational Description explains that the possibility of directly connecting a cell phone to the amplifier by a coaxial cable requires partial disassembly and is only used during laboratory testing.

There appears to be a misunderstanding concerning the usage of the device. As explained in the user manual, the booster may be installed as either a mobile or a fixed device. This is evident from review of pages 3 and 5 in the user manual.

We intended to provide conservative RF Safety warnings that are easily understandable. Unfortunately, there was a general statement made regarding 15 dBi antenna gain that failed to clearly state that such antenna gain could only be used in fixed installations. The user manual has been revised to clarify that such high gain antennas may only be used in fixed installations and only when in compliance with the minimum distances stated in the RF Safety Warning.

24.232(c) applies only to mobile/portable installations. The gain of the outside mobile antenna is 6.12 dBi for the antenna option with highest gain. Its integral coaxial cable has 7 dB loss yielding a net gain of -0.88 dBi which is 1.3 dB less than the gain that would result in the maximum allowable 2 Watt EIRP. This is demonstrated in the submitted MPE calculations (see: 2B5225 MPE 1900 Mobile Outside.xls). While the actual inside antenna gain is less than the gain of a dipole, the inside antenna MPE calculations were done using a highly conservative net gain of 20 dBi resulting in an EIRP of only 0.1033 watts that is well below the 2 watt limit (see: 2B5225 MPE 1900 Mobile & Fixed Inside.xls). Therefore, when using the antennas indicated by the user manual, the booster is compliant with 24.232(c).

For Mobile installations, the results for all of the submitted MPE calculations meet the criteria of 2.1091(c) such that routine environmental evaluation is not required. The submitted calculations show the power densities comply with Table 1 of 1.1310 (see: 2B5225 MPE 800 Mobile Outside.xls, 2B5225 MPE 1900 Mobile Outside.xls, 2B5225 MPE 800 Mobile & Fixed Inside.xls, 2B5225 MPE 1900 Mobile & Fixed Inside.xls).

For Fixed installations, the requirements for fixed Inside Antennas are the same as those for mobile Inside Antennas. The submitted calculations demonstrate compliance with 2.1091(c) and 1.1310 (see: 2B5225 MPE 800 Mobile & Fixed Inside.xls, 2B5225 MPE 1900 Mobile & Fixed Inside.xls). For outside Fixed installations, the provisions of 2.1091(c) are not applicable. The submitted calculations show that the requirements of 1.1310 are met.

As discussed in the 12/9/2009 conference and further detailed in the recently received FCC email, we have added an additional warning to the User Manual that addresses concerns about holding a cell phone near the ear with the cradle attached. In addition, a prominent FCC warning will be included with the FCC ID Label with the following text: "FCC requires to never use the cell phone in the cradle next to your ear. See installation Guide."

A handwritten signature in black ink, appearing to read "Richard M. Kline". The signature is written in a cursive, flowing style.

Richard Kline
Senior Electrical Engineer