



American Telecommunications Certification Body Inc.  
6731 Whittier Ave, McLean, VA 22101

June 22, 2003

RE: Radwin Ltd.

FCC ID: Q3KWINLINK

After a review of the submitted information, I have a few comments on the above referenced Application.

- 1) The reference to 15.35 of the rules regarding averaging "over one complete pulse train, including blanking intervals" is relevant to arrive at a duty cycle when using mathematical techniques for pulsed emissions (ie. OOK modulation, etc). However, when using a spectrum analyzer to make average measurements (as given in section of 4.7 of this report for some measurements) the VBW must be set to  $\geq 1/T$ , T being the Transmitter on time. This is the same requirement as for measuring the power as shown in method 3 for measuring power given in the DA 02-2138 Public Notice regarding UNII measurements.

Note that you may apply a correction factor of  $20 \log (1.6430/3.3258) = -6.1$  to the Peak or Average measurement assuming this is the maximum TX duty cycle in a 100 msec period of time and the average measurements was made correctly. Please confirm if this is the worse case duty cycle for a 100 msec period of time. However the Average measurement must be made with  $VBW \geq 1/T$  regardless of whether this correction is applied or not. Careful review of all measurements in section 4.7 shows that about 1/2 the measurements were made with 300 Hz, the other half using 1 kHz. The 1 kHz measurements are considered acceptable. Using the assumed -6.1 dB correction factor and looking at the peak reading for the few measurements made with 300 Hz shows that most readings are compliant without taking average measurements. However further measurements using a VBW of  $\geq 1$  kHz will be required for the following to show compliance:

- a) 4810 MHz for a carrier frequency of 5810 MHz.
- b) Note 1: If the maximum duty cycle given above is not considered correct, further measurements may be necessary
- c) Note 2: plot A58 does not show the Average plot for its measurement. If this was made using 300 Hz it will also be required to be remeasured using a  $VBW \geq 1$  kHz.

Timothy R. Johnson  
Examining Engineer

[mailto: tjohnson@AmericanTCB.com](mailto:tjohnson@AmericanTCB.com)

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information may result in application termination. Correspondence should be considered part of the permanent submission and may be viewed from the Internet after a Grant of Equipment Authorization is issued.

Please do not respond to this correspondence using the email reply button. In order for your response to be processed expeditiously, you must submit your documents through the AmericanTCB.com website. Also, please note that partial responses increase processing time and should not be submitted.

Any questions about the content of this correspondence should be directed to the sender.