



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

April 9, 2005

RE: RadWin Ltd.

FCC ID: Q3KAMWL1240

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

Operational Description Issues:

- 1) Is an operational description available just for the device being certified that does not mention the additional bands at 5 GHz or an operational description denoting the different models available. The operational description previously provided does not appear to distinguish various models or versions and it appears as only a single type of device. The concern is that if this is uploaded as the operational description to the FCC site, the operational description does not appear to provide these differences and it would appear to the FCC that the device is not properly Certified. Please provide an operational description only for this device or correct the previous operational description provided to denote the various models available.

Users Manual Issues:

- 2) The manual does not appear to clearly denote that various versions/models are available that operate on different frequency bands (i.e. 2.4 GHz only). The manual suggests only a device that can operate on both 2.4 and 5 GHz. It would be suggested to update the manual as well to clearly denote that various models are available. For instance page 1-3 (15 of 80) mentions a 28 dBi antenna which is not covered by this application and appears only applicable to the 5 GHz band. Specifications seem to only support a model that operates in both 2.4 and 5 GHz bands. Page 2-13 (32 of 80), 3-4 (40 of 80), 3-8 (44 of 80), and 3-10 (46 of 80) appear to show configurations only for 5 GHz, etc. Please update the manual to explain/denote the various models available or alternatively provide a new users manual specific to the device being approved.
- 3) Page 3-10 (46 of 80) of the users manual shows configuration of TX power. Please explain compliance to 15.15 (RSS-210 5.7) of the rules for the power setting. The user can not be given control of levels above which are approved for the U.S./IC.
- 4) According to users manual information, the user may manually select a channel, even beyond those listed in the menu. To be compliant to 15.15 (RSS-210 5.7), the system can not accept channels outside the approved range for the U.S./IC. Please explain how the system ensures compliance to 15.15 (RSS-210 5.7) for manual selection of frequency.
- 5) Page 64 mentions that the user may use any antenna they wish. This is not true. First the system must be professionally installed and second, only antennas approved for use with the system may be used. The purpose of 15.203 of the rules is so the user can NOT simply change the antenna to another. Professional installers are responsible to ensure only the correct antennas are being installed. Please see attachment which explains the FCC policy regarding antenna changes. Please correct the users manual as necessary.
- 6) Regarding previous question 2 & 3, there is not enough information to support the filter mentioned (for example this does not appear in the block diagram or schematics). Please provide more information as necessary. In addition, please note that the requirements of 15.15 (RSS-210 5.7) would require that the software not allow the user to select the 5 GHz band regardless of the filter installed. The user should not be able to select any band that is not approved for use in the U.S./IC for the device being configured. Please explain how the software accomplishes this.

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- 7) The users manual does not appear to contain information required by 15.21, 15.105 (a or b as appropriate), and information necessary as given in last part of 15.247(b)(4)(iii) informing the user and installer that it may only be installed for fixed point to point applications under FCC rules. Please update the manual to include the necessary information.
- 8) The users manual does not appear to contain appropriate RF exposure statements. It is expected that the manual contain the following statements or similar:  
The antenna(s) used for this transmitter must be fixed-mounted on outdoor permanent structures with a separation distance of at least 35.5 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.
- 9) Please explain what type of marketing control is used to ensure professional installation. Simply placing a statement in the manual is not typically sufficient. How is the device marketed or controlled to ensure professional installation?

Additional Items:

- 10) Although external photographs have been provided, the external photographs provided will likely be considered by the FCC to not be of sufficient resolution to distinguish all components that they normally want to see. Therefore it is suggested to provided higher resolution photographs if possible.
- 11) I am not sure I fully understand your response to item 9). You state both 15.109 and 15.209 emissions were tested with the actual antenna attached, but then you appear to mention it was only terminated for unintentional measurements only. Note that spurious and harmonic emissions (15.209) are not considered unintentional emissions (15.109). Please explain as spurious and harmonic emissions under 15.209 should have the actual antenna attached during testing. This is one reason the FCC requires antenna of each type and highest gain to be tested. If this was not performed than additional testing would be required.
- 12) Please explain why no harmonic emissions are reported in section 5.1.4 of the report. Harmonic emissions should be measured with actual antennas attached as given in 11) above.
- 13) For your response to item 10), please confirm that the dish antenna was properly mounted as previously mentioned. Your response references a photograph 8, but this is for the internal antenna and not the dish antenna of concern.
- 14) Your response to 14) does not explain if power measurements were made using peak or average measurements. This should be adequately documented as this also affects the limits applied to spurious emissions outside of the Restricted bands (20 dB down vs. 30 dB down) – ref 15.247 (d). Please explain.
- 15) For your response to item 15), it is uncertain if this device can utilize standard 802.11 b or g protocols or only the proprietary protocol. If so, then each of these protocols use a different modulation scheme and tests such as power, bandedge, and spectral density, and radiated measurements should be investigated in this mode as well. Please review.
- 16) Your response does not appear to have addressed issues 17-19 from the previous set of comments.



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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](http://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.