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

April 26, 2004

RE: FCC ID: O2E-ILR-ICARDIII

Attention: Kathy Grzovic / Desmond Fraser

I have a few comments on this Application.

1. On the second to last photo in the internal photo exhibit, in the upper left corner, there is an undetermined component/shielded area. Please explain and or remove the shielding and show the board underneath.

Response: The area of the board in question is the frequency synthesizer. It is a single component and does not have an external shield that can be removed.

2. Please note that the manual states that maximum output for this device used in North America is 24dBm. This is about 250mW. Please note that 15.245 limits are in field strength (dBuV/m). For 902-928MHz this correlates to 113.98dBuV/m or 6.98dBm at 3 meters (assuming a 50 Ohm system). Please also note that as the limit is a field strength limit, this maximum level would include any gain of any antenna used. It is not stated as to how the power listed in the manual and the measured values relate. Please verify that the information in the manual is accurate and representative for this device and is in line with actual allowed and measured values.

Response: Although the device's maximum peak power is 24dBm, the 15.245 limit of 7dBm is a time average value. This limit is met due to the duty cycle of the device being less than 5%.

3. Please note that section 1.1 (page 5 of the test report) states that you modified the power settings of the device in order to test the YAGI antenna. Please note that as this is not a professionally installed device, this user power adjustable configuration is not allowed (see 15.15b - "An intentional or unintentional radiator must be constructed such that the adjustments of any control that is readily accessible by or intended to be accessible to the user will not cause operation of the device in violation of the regulations.") This means the user cannot have access to any controls, firmware or software that would allow the device to exceed its maximum output or frequency range. This also means that the maximum output at the time the YAGI was used is the maximum output for the device under all configurations and antenna(s). Please explain how the manufacturer intends on limiting the device output so it does not exceed this level. Also, please test the other antenna configurations using the same maximum allowed output as used with the YAGI antenna. Alternately, please explain how this device is professionally installed so as the various power levels and antennae configurations do not violate the maximum filed strength levels for all antenna configurations.

Response: The YAGI antenna is used specifically when the device is installed by IDENTEC SOLUTIONS or by our Authorized System Integrators (who are considered professional installers). The device is typically shipped direct to end-users with the standard ¼ wave monopole antenna. The higher gain antenna (specifically the YAGI) is used in specialized applications and is available for integration only to those companies that are considered professional installers. Therefore, any installation of the YAGI will only be completed by trainer installers who are competent in the device configuration to maintain compliance with all field strength levels.

4. Please note that the technical specification / operating description states that there are 4 antenna types used with this device (monopole, dipole, patch and YAGI). Please verify if the 1.4wave data in the report is meant to be for the monopole antenna stated in the operational description. If this is not the monopole, please test the monopole antenna specified.

Response: Yes, the 1/4 wave antenna data in the report is for the monopole antenna.

5. Please provide the email between Jon Hughes and Tim Harrington of the FCC mentioned in the rf exposure exhibit if available.

Response: Please see the cover letter exhibit uploaded with this response.

Dennis Ward
mailto:dward@AmericanTCB.com