



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

September 4, 2003

RE: FCC ID: QP8-MEI915WLAN

Attention: Gregory M. Snyder / Brian J. Dettling

I have a few comments on this Application.

1. Please complete the 731 form. The power level for the transmitter has not been filled in. -
2. Is this a simple FSK transmitter, or a Frequency Hopping Spread Spectrum device? The block diagram does not appear to be that of a typical FHSS device (i.e. FSK modulation is not in itself a FHSS modulation). Please explain. Please provide information on the chip rate for this device. -
3. Please note that the Frequency Hopping chart indicates that hopping may not be pseudorandom as required but sequential in nature. (please note - 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, etc appear to be sequential hop characterizations - which is not allowed.). Please explain how this is a pseudorandom hopping sequence meeting the requirements of a spread spectrum device under 15.247. -
4. Please note that the recorded power level of this device is 1 Watt. This is rather close to the limit. Consequently power measurements using an analyzer (while allowed by the FCC) may not be adequate to report the actual power of the device. This is especially true when the trace shows readings at or very near the top graticule. Measurements under this condition (even with external attenuation) may actually be that of a compressed signal. What measures have been taken in measuring power to verify that the signal is not being compressed (i.e. inserting another 10dB pad in line to make sure that an exact 10dB reduction in signal occurs would be one indicator that the measurement is valid). Please provide evidence that this signal is not compressed. -
5. Please note that when using an analyzer for peak power measurements, a resolution bandwidth correction factor must be used. This factor takes into account the measured 6dB bandwidth of the plot and the actual res bandwidth of the analyzer. Please note that in the conducted power plot the span is 20MHz. Thus each graticule is 2MHz wide. The 6dB bandwidth on this plot then would be approximately 3MHz. The resolution bandwidth correction factor would then be  $10\log(6\text{dB BW}/\text{actual Res BW})$  or 1.7dB correction factor. This potentially puts the peak power over the 30dBm limit. Please verify the conducted output power is 30dBm or less by including any required resolution bandwidth correction factor or by measuring the peak power using a diode detector or peak power meter. -
6. Please note that you state the occupied bandwidth of this device is approximately 84kHz. Please note that it is unlikely that this meets the definition of a spread spectrum device. -
7. Please provide evidence that the receiver for this device meets the input bandwidth requirements for a spread spectrum receiver. -
8. Please note that on pages 34 to 36 of the report you have apparently mixed the  $\mu\text{V}/\text{m}$  and  $\text{dB}\mu\text{V}/\text{m}$  numbers in the limit column. Please explain and/or correct the column to be consistent. -

Dennis Ward

<mailto:dward@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.