



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

December 12, 2003

RE: FCC ID: PHX-MMDS-BASE2_ATCB000975

Attention:

I have a few comments on this Application.

1. Please complete the technical contact information on the 731 form.
2. This device is an MMDS transmitter used typically for internet service connections etc. It does not appear to provide any of the modulation or services required for ITFS stations. While part 21 and part 74 use many frequencies on a shared basis, in order to fit into part 74 the device must provide the particular service of part 74. Please note that *Instructional television fixed station*. Is a "fixed station licensed to an educational organization and intended primarily for video, data, or voice transmissions of instructional, cultural, and other types of educational material to one or more fixed receiving locations. " The intent of part 74I is to "...be used to transmit formal educational programming offered for credit to enrolled students of accredited schools, with limited exceptions as set forth in paragraph (e)(9) of this section and Secs. 74.990 through 74.992." While part 74I allows OFDM modulation, the service must still apply. Please explain how, other than similar modulation characteristics, this device fits the definition and requirements of a part 74I "Instructional Television Fixed Service".
3. Please note that you have a calculation error on page 5 of the report under "Test Conclusions" Vertically polarized. In the report your state "Transmitted Power = $33 + 19 = 53$ dBm. Please note the 33_{-19} is 52. Please correct.
4. Please note that on page 3 and 52 of the report you state calibration is not required for the inline attenuator used in power and antenna spurious emissions measurements. The calibration chart also does not show the directional coupler as being calibrated. Please note that any test equipment used that has a direct affect of the measurement accuracy needs to be calibrated or the correction factors at least need to be known. When using non-calibrated equipment it is not possible to clearly and unambiguously state the measurement results. Please provide evidence that the attenuator used was calibrated. Alternately, please provide evidence that the attenuator was the value as stated and that it was appropriately included in calculating power and conducted spurious emissions. Please show the sample calculations using all appropriate inline losses or gains in the measurement system. How are they accounted for? For example, what affect does the MMDS channel filter have on the measurement of the 5 watt setup? What is the loss, if any, of the directional coupler?
5. Please note that while the method RECOMMENDATION ITU-R SM.329-10 may be accepted by and incorporated in many ETSI standards, it is not a recognized FCC spurious emissions certification test procedure for licensed devices. Radiated spurious emissions are required by the FCC to be a measurement done by antenna substitution methods. Please provide radiated spurious emissions in accordance with FCC accepted procedures for making EIRP measurements using antenna substitution test methods.

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.