

American Telecommunications Certification Body Inc.

6731 Whittier Ave, McLean, VA 22101

June 14, 2004

RE: FCC ID: MOIPULS68_ATCB001415

Attention: Desmond Fraser

I have a few comments on this Application. Please note that further comments may arise in response to answers provided to the questions below.

1. FYI – no action needed. Please note that 15.209 average limits are only applicable above 1GHz and for the frequency bands 9-90 kHz, 110-490 kHz. Below 1GHz the limits are QP.

Response: Noted, thank you.

2. Please note that while you state that the device receives 24 volts from the industrial installation, you have not made it clear if this 24 volts itself comes from an ac power power supply. If this is the case then conducted emissions will still be needed. Please explain how this 24 volts is provided (i.e. is it from a power supply that itself connects to the AC mains?)

Response: The 24 DC volts required by the EUT is typically obtained from large industrial sites at which this voltage exists. The manufacturer does not provide AC-to-DC adapters because the 24 DC volts are generated by the industrial site from a non-AC source, at which hazardous and non-hazardous fluids are typically monitored by the EUT.

3. The report states that the device was tested in continuous data transmission mode. This however, may not address the potential spurious emissions caused by a pulsed radar signal. Was any testing or engineering justification done that would address the potential of radiated emissions which might be produced by the EUT? Please explain.

Response: The EUT was tested in continuous mode simply means that the EUT was configured in the maximum duty cycle required for proper operation and allowed to continuously cycle during measurement in order to measure all emissions from the pulsed radar. The EUT continued to operate in pulse radar mode. Other duty cycles were investigated but none produced the worst case power. The output from this device is so low that measurements can only be made at 0.3 meters from the antenna.

4. Please note that there does not seem to be any differences between the two test reports provided except for the file name. Please explain.

Response: Please note that the report uploaded 06/10/04 called "2004074.....R0.01", reflects a 0 offset in plots 6-2 and 6-3. This report corrects typographical errors that were in Rev0.00.

5. Please note that the manual states that all operations in the manual pertain to trained personnel. Does this include installation and does this mean the device is professionally installed?

Response: The device is an extremely low power device with a very narrow beam width antenna, trained personnel does not refer to training for RF hazard. Professional installation is not required.

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6. Please note that the manual lists a horn and a parabolic antenna as possible antennae for this device. Please note that it appears that only the horn antenna was tested. Also, while the test report states 4 antenna configurations were evaluated, it does not list these antennae nor does it state the the parabolic antenna was one of the 4 antennae evaluated. Please explain and verify that the parabolic was evaluated.

Response: Only the horn antenna was tested; please refer to the revised manual and report uploaded.

7. Please note that the setup external photos show a 16.8dBi gain horn antenna as the EUT antenna, yet the report states that a 19.5 dBi gain horn was used. As part 15 devices are antenna inclusive, please provide photos of the 19.5dBi antenna.

Response: The horn antenna in the photograph is indeed the 19.5 dBi antenna configured in the test, however the photograph was mislabeled with 16.8 dBi. Please refer to the revised External Photograph exhibit uploaded with this response.

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.