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

May 27, 2007

RE: FCC ID: TFF-FR-100_ATCB004943
Attention: Brian Dettling

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. Please note that this both a modular approval under Part 15 and a licensed transmitter module under part 90. As such please provide the required part 15 modular approval letter verifying all 8 modular requirements. If this the module does not meet all of the 8 requirements for part 15 modular approval, please provide a LMA request stating the conditions for approval.
2. Please note that as this appears to be a modular approval for part 15 and a licensed modular transmitter for part 90, please provide a manual that provides the required "Contains FCC ID:zxxxxx" statement as appropriate. If this statement is in the existing manual, please point to the page number of the manual.
3. Please explain and verify how this device uses non-standard antenna(s) for the part 15 device. If this device uses standard antenna(s), please note that the manual needs to state that the antenna for aprt 15 are professionally installed.
4. Please note that the part 15 test report states testing was done to DA00705. Please note that DA00705 is for frequency hopping spread spectrum devices. Please make reference to the proper DTS test procedures approved by the FCC. Please verify the all testing was performed to the proper test methods approved by the FCC.
5. Please note that the frequency range 5725-5850 should only be certified under one rule part. Please explain why frequencies in the 5725-5825MHz range are trying to be certified under both 15.247 and 15.407. Please apply for certification under one or the other rule part.
6. Please explain what "Emission Bandwidth dB" in table 7 on page 24 of the report means. Please explain what 74dB bandwidth means.
7. Please explain how you can have a 75MHz occupied bandwidth (see page 55 of the report) and be compliant at the band edge frequency 5725MHz on a fundamental of 5745MHz (see page 53 of the report). As it is unlikely that this device has a 75MHz bandwidth as stated in the table on pages 24 and 53), please provide a bandwidth plot of the 5745MHz center frequency.
8. Please note that the manual states the uses of this device include "CityWiNet", "Office WiNet" and HomeWiNet. Please explain how Part 90M (Dedicated Short-Range Communications Service) fits into these network systems.
9. Please note that 90M for Road Side Units has two limits. The one limit is the max power out and the other is the max allowed EIRP. Please show how the highest gain antenna used for this band meets the allowable max EIRP.
10. Please note that part 90 licensed device spurious emissions are ERP limits. Please explain why the part 90 report compares part 90 spurious emissions for this device to class B part 15 limits. Please use the correct limits and test methods for licensed device spurious emissions.
11. Please note that depending on the responses to the above, further questions may arise.

Dennis Ward

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.

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

August 28, 2007

RE: FCC ID: TFF-FR-100_ATCB004943
Attention: Brian Dettling

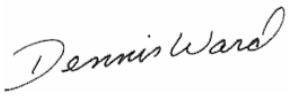
Comment addendum

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. Please note that 90M for Road Side Units has two limits. The one limit is the max power out and the other is the max allowed EIRP. Please show how the highest gain antenna used for this band meets the allowable max EIRP.
2. Please note that part 90 M in this frequency range mentions two types of operating devices. One is the Roadside Unit (RSU). This is a DSRC transceiver that is mounted along a road or pedestrian passageway. An RSU may also be mounted on a vehicle or is hand carried, but it may only operate when the vehicle or hand-carried unit is stationary. Furthermore, an RSU operating under this part is restricted to the location where it is licensed to operate. However, portable or hand-held RSUs are permitted to operate where they do not interfere with a site-licensed operation. A RSU broadcasts data to OBUs or exchanges data with OBUs in its communications zone. An RSU also provides channel assignments and operating instructions to OBUs in its communications zone, when required. This is a part 90M device. The second is the On Board Unit (OBU). This is a DSRCS transceiver that is normally mounted in or on a vehicle, or which in some instances may be a portable unit. An OBU can be operational while a vehicle or person is either mobile or stationary. The OBUs receive and contend for time to transmit on one or more radio frequency (RF) channels. Except where specifically excluded, OBU operation is permitted wherever vehicle operation or human passage is permitted. The OBUs mounted in vehicles are licensed by rule under part 95 of this chapter and communicate with Roadside Units (RSUs) and other OBUs. Portable OBUs are also licensed by rule under part 95 of this chapter. OBU operations in the Unlicensed National Information Infrastructure (UNII) Bands follow the rules in those bands.

   The definition of this module as described in the manual would seem to indicate that this is not an RSU but would be an OBU. I say not an RSU because according to the definition of an RSU it must be **stationary to operate** and it must **only operate in locations in which it is licensed**. The places in which this device is described for use (i.e. laptops etc) appear to make this a portable device when used and it is not restricted to stationary use nor is it restricted to licensed locations. (see 90.371(a)). Also, because of the listed applications in the manual (i.e. access points, ADSL modems, routers, laptop) are typically home or office use (thus the question concerning citywide or office wide networks) the advertised use of the device does not seem to fit a licensed location defined under 90M. Thus, the use of this device has no obvious restrictions as required for a part 90M RSU and the manufacturer has not made this clear in the documentation.

From the existing documentation and from the new documentation, the device seems to fit the non-stationary, portable definition of OBU and thus would seem to fit 95L for Dedicated Short-Range Communications Service On-Board Units (DSRCS-OBUs). The question then is why is this not a part 95 device in this frequency range and how does this fit into the licensed part 90M scenario (e.g. how is this an RTU, how is this a stationary only operation under 90M as an RTU and how does the manufacturer make this clear to the integrator)?



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.

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