



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

March 18, 2005

RE: FCC ID: IP9CST751XVI_ATCB002227

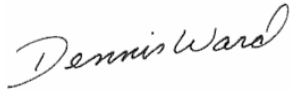
Attention: Jeff Olsen

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 provide the required external photos of the device.
2. Please provide the operational description of the device as a separate exhibit per FCC requirements.
3. Please provide the parts list for the device as a separate exhibit per FCC requirements.
4. Please provide the tune up procedure for the device as a separate exhibit per FCC requirements.
5. Please provide a drawing or photo of where the FCC ID label is to be located on the device.
6. Please note that the FCC Logo shown on page 5 of the manual is a logo that applies only to "products subject to authorization under a Declaration of Conformity" process. Please explain why this logo has been used in the manual (i.e. is this a computer peripheral also?).
7. Please complete the technical contact information on the 731 form. This is information required by the FCC.
8. Please complete section IV of the 731 (applicant/agent certification). This is information required by the FCC.
9. Please provide the required confidentiality request letter. This letter should reference 0.459 of 47CFR and should list each specific exhibit to be held confidential. The exhibits which may be confidential are: Schematics, Operational Description, Parts list, Tune up procedure, block diagrams.
10. It appears that you are requesting temporary confidentiality for some exhibits. Is so, please provide a request letter requesting temporary. The files that may be held in temporary confidentiality are: external photos, internal photos, test setup photos, manual. Please note that this letter can be part of an overall confidentiality request as long as each type of confidentiality is clearly stated and the exhibits are clearly identified for each type. Please also note that temporary confidentiality ends when the device is made public (i.e. sold to the end user) or 45 days after granting.
11. Please note that the emissions designator listed on page 2 of the manual is incomplete. It states 11K2F3 but should state 11K2F3E. Please correct.
12. Please note that the Occupied Bandwidth plots on page 5 of the report references a non-existent rule part. Please note that section 90.211 does not exist in part 90. Please correct to show compliance to the existing rule parts.
13. Please note that on page 7 of the report you reference part 90.209 Emission Mask D. Please note that there is no such designation under part 90.209. Do you mean 90.210 Emission Mask D? Please explain.
14. Please note that on page 7 of the report you give the formula " $50 + \log (.50W)$ ". This is incorrect. Do you mean $50 + 10\log (.50W)$? Please explain.
15. Please note that the FCC ID number for this device appears to be IP9751XVI. The graphical data in the report states it is for FCC ID IP9CST751XVI. Please explain and please correct as necessary.
16. FYI - Please note that the power listed on the grant will be the actual measured power. The power shown on the graph on page 3 of the report shows that the actual power measured is approximately 468mW (.468W). This is the value that will be on the grant and it is the value that should be used in all calculations where power is a factor.
17. Please note that radiated spurious emissions for part 90 devices are ERP measurements performed using the antenna substitution method in accordance with TIA603 section 2.2.12 and are not field strength measurements. To justify your measurement methods you would have to measure the ERP of the transmitter and apply to ERP- $(50 + 10 \log P)$ formula. However, since the end result is the same, the limit using the antenna substitution method for spurious radiated

emissions would be -20dBm (87dBuV). In any case, field strength measurements for part 90 devices are not appropriate for TCB certification. Please provide antenna substitution measurement data as required for part 90 devices as specified in TIA603 section 2.2.12.

18. On page 10 of the report you state "An average factor of 20 db was applied to the level of the fundamental Emission when compared to the FCC limit." I see no justification for a 20dB averaging value in the report. Please explain and please show measurement data to support this value.
19. Please note that 90.209 address bandwidth limitations and channel spacing but does not address spurious emissions. This is more properly addressed in 90.210 under the emissions mask requirements. Please explain the reference and please correct as necessary.
20. Please note that page 17 of the report states in the procedure that the data is for IP92K5V. Please correct and/or provide data for the product for which certification is being sought.
21. Please note that the plots on pages 18 and 19 of the report state they are for FCC ID IPCST751. Please correct and/or provide data for the product for which certification is being sought.
22. Please note that it is not possible to determine if SAR is required for this device as the gain of the antenna has not been provided. The device power before SAR would have to exceed 5 watts for device greater than 2.5cm from the body and 2.1 watts for device closer than 2.5cm. If this is a device that falls under the 50% duty cycle limit then the powers would double. This would mean that any antenna used with this device at a 50% duty cycle would have to have a gain less than 10dBi. While this is most likely the case, it still must be declared. Please provide the antenna gain information for this device.
23. Please note that even if SAR is not required for this device, as this is a controlled/occupational environment device, rf exposure caution statements may have to be included in the manual. Please provide as necessary.



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.