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

August 26, 2005

RE: Shinsedai Company Limited

FCC ID: TA4PT1FSH31001

After a review of the submitted information, I have a few comments on the above referenced Application.

1) Please update the confidentiality and POA letters to show the contact information of the person signing the forms (first/last name, position, phone number, etc.).
2) The block diagram should show the frequencies of all oscillators in the TX device (CFR 2.1033(a)(5)). Please update.
3) The schematics do not include the TX. Note that a schematic for the TX portion of the device is required as specified 2.1033(b)(5) for the RF section. Please provide.
4) Please explain the table on page 24. The data does not appear to match the table. Additionally, it does not appear to take into consideration 0.4 x 15 = 6 second period and the number of times the device will pulse and be seen in this time period as well. Please correct.
5) For spurious emissions, many of the readings exceed the average limit, however average results are not shown in all cases. Additionally, please note that this device would be best to show average measurements by correcting the peak measurements by duty factor corrections for the worse case TX over any 100 msec period of time. If the worse case dwell time is 162.9333 us per hop, then the worse case dwell time in any 100 msec would be (100/.162933)/15 = 41 hops in 100 msec. 41 x 162.933 ms = 6.67 ms per 100 msec. This yields a duty cycle correction of 20 log 0.067) = 23.5 dB. Average measurements = Peak measurements – 23.5. Since the correction factor is > 20 dB, average measurements would meet as long as peak measurements meet. However the above assumes this is only a frequency hopping system and not DTS or hybrid. Please note that if the device was pulsing during testing, then VBW = 10 Hz measurements are not considered valid. Please comment/correct as necessary.
6) We need to understand if this is being submitted as a DTS under 15.247, DSS under 15.247, Hybrid under 15.247, or possibly under 15.249. Note that given the output power of the device, it appears that the best suggestion may be to Certify under 15.249, but this will also require a test of the fundamental field strength. Additionally, if this is to be Certified under 15.247 DTS, it appears we are missing information such as 6 dB bandwidth test. If this is being certified as a DSS device, we are missing detailed theory of operation to explain compliance to pseudo-random hopping, tracking and bandwidth of RX's under 15.247(a), compliance with 15.247 (g) and (h), and detailed theory to understand timing and synchronization issues. I have provided an attachment which explains when and how to certify these devices as DTS, DSS or both and how to address. I have also provided guidance in DTS and DSS methods for your review. Again, given the output power and antenna gain, it may be simplest to certify under 15.249 instead. Note that as long as the device meets the measurements of 15.249, complete detailed theory of operation and other requirements are not necessary under 15.249. If this is processed under 15.247 as a DSS, a lot of effort of the review will revolve around the detailed theory of operation information. Please review and provide guidance and exhibits as necessary. Also, be aware given an incomplete report and uncertain nature of how the information here will be addressed, a complete review of the report has not currently been done.

7) FYI…Given the output power of the device, the following statements may be removed from the manual if the manufacturer desires.

   "In order to maintain compliance with the FCC RF exposure guidelines, this equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body."

8) FYI…This device appear to be designed for use only with another specific TX (FCC ID: TA4PT1FSH11001). Note that this application can not be granted until both are ready to be granted. Both are required to be posted to the FCC site within a few days of each other.
9) FYI….Note that RF exposure issues (exhibit and users manual information) are not necessary if the device is certified under 15.249.

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Examining Engineer

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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.