



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

January 11, 2005

RE: DLP Design, Inc.

IC Number: SX9000RF1

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

- 1) The frequency on the 731 form appears incorrect for the TX. Please correct.
- 2) The preferred format for the FCC ID on the label is to include a ":" after the term FCC ID. It is recommended to correct this.
- 3) Labeling of this device appears to be on the circuit board and it appears that possibly a modular approval is being desired. However, please note that this device does not appear to qualify for a modular approval. The board does not contain any shielding, which is a requirement for modular approvals. Note the shielding required is necessary not only for spurious emissions radiated from the device, but also to protect the device from nearby interfering coupling that can occur once the device is installed and in use. Please see attached document regarding modular approvals. Note that modular approvals require a cover letter addressing each of the items given in the document.
- 4) If the shielding issue can not be adequately addressed, please provide an external photograph exhibit for this application (i.e. end use device) and updated labeling exhibits.
- 5) Please provide the list of tunable frequencies associated with this device.
- 6) Please provide a separate RF exposure exhibit. Given the power output, it may be possible to use in portable applications as well. Please refer to attachment that provides a sample on how to handle as a portable device as well.
- 7) DXT is not the proper code for this device. Is this device should be considered a DTS device. Please correct the 731 form.
- 8) If modular approval can be adequately pursued given the issues above, the users manual should be further updated for certain FCC issues. Some issues appear to already be covered. If necessary please consider updating the users manual to include any missing information shown on the next page.
- 9) The FCC has asked that TX's tested in modular form be positioned such that the antenna is not on the table top, but positioned a small distance above the table top (2-3 cm). This is due to the fact the FCC has seen where positioning of the antenna directly on the table top causes loading of the antenna to be different than actual use and can provide inaccurate data on the TX. Additionally the antenna should be positioned in the polarities expected for use. Please review radiated test data and test configuration photographs as necessary to be in compliance with the FCC's expectations. Also, please see information below from training that mentions this in part (note the coupling and proximity to wood table was mentioned verbally during the training session from the training slide to follow.
- 10) Radiated spurious emissions measurements from 19-25 GHz only show compliance to the peak limits, but are in excess of the average limits. Please provide average measurements as well.
- 11) From researching information on Zigbee, it appears that it may be possible for it to transmit up to 15 mS duration, although concise and clear TX protocol information could not be found. Please have the manufacturer provide worst case theory of operation regarding maximum TX duration and duty cycle information. Note this may affect results for average measurements depending on the final worst case information.

- 12) FYI....Please note that while in some limited cases a Limited Modular approval may be done in the U.S., currently IC does not recognize a Limited modular approval, only a full modular approval. Please refer to RSS-210 section 5-18 and further information to be provided in a separate email.



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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.

TEST SETUP ERROR



➤ Radiated EMC test setup for mini-PCI card on extender-card with monopole diversity-antenna system (Part 15 modular stand-alone setup)

➤ **DO NOT LAY ANTENNAS ON WOOD TABLETOP**

- ▶ Antenna positioning in test setup should represent typical final-product configuration
- ▶ In this example antennas should be supported in vertical position, e.g., using foamed-polystyrene blocks

The manual should provide further information and better detail as to how the OEM must use the module in order to maintain RF exposure compliance and that its approval is limited only to devices that can maintain the 20 cm distance between the antenna and body. In order to make sure that the integrators are given enough information, please add the following information or similar to the users manual:

This device is intended only for OEM integrators under the following conditions:

- 1) The transmitter module may not be co-located with any other transmitter or antenna.
- 2) The Module is approved using the FCC 'unlicensed modular transmitter approval' method. Therefore the module must only be used with the originally approved antennas.

As long as the 2 conditions above are met, further transmitter testing will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

IMPORTANT NOTE: In the event that these conditions can not be met (for example certain, co-location with another transmitter, or a different antenna), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

End Product Labeling

The final end product must be labeled in a visible area with the following: "Contains TX FCC ID: {INSERT FCC ID HERE}".

RF Exposure Statements That Must be Included in the Users Manual

The users manual for end users must include the following information in a prominent location "IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter."

Additional Information That Must be Provided to OEM Integrators

The end user should NOT be provided any instructions on how to remove or install the device.