| Applicant/Grantee Dell Computer Corporation | | | | | | | | |
|---|-----------------------------------|--------------------------------------|--|--------------|--|--|--|--|
| FCC ID: E2KDWBT1 | | | | | | | | |
| Section 15.212 Modular Transmitters | | | | | | | | |
| Request for Modular Approval Request for Limited Modular Approval | | | | | | | | |
| | | Requirements | EUT Conditions | Comply (Y/N) | | | | |
| Single Modular Approval Requirements | | | | | | | | |
| 1 | The radio ele | ements of the modular | Device is equipped with Metal shielding | Y | | | | |
| 1 | | nust have their own | to cover RF section. | _ | | | | |
| | | ne physical crystal and | Refer to external photos. | | | | | |
| | | itors may be located | refer to enternal photosi | | | | | |
| | | ne shielded radio elements. | | | | | | |
| 2 | The modular transmitter must have | | All inputs to the modules are buffered | Y | | | | |
| _ | | dulation/data inputs (if such | through logic or microprocessor inputs. | | | | | |
| | | ovided) to ensure that the | imough rogic of imeroprocessor inputs. | | | | | |
| | | comply with Part 15 | | | | | | |
| | | s under conditions of | | | | | | |
| | | ta rates or over-modulation. | | | | | | |
| 3 | | transmitter must have its | Internal 3.3V power regulators. Refer to | Y | | | | |
| | | upply regulation. | Block Diagram. | - | | | | |
| 4 | _ | transmitter must comply | Refer to antenna specification and test | Y | | | | |
| | | enna and transmission | report. | | | | | |
| | system requi | rements of Sections 15.203, | = | | | | | |
| | • | d 15.204(c). The antenna | | | | | | |
| | | be permanently attached or | | | | | | |
| | | nique" antenna coupler (at | | | | | | |
| | * • | ons between the module and | | | | | | |
| | the antenna, | including the cable). The | | | | | | |
| | | l installation" provision of | | | | | | |
| | - | 03 is not applicable to | | | | | | |
| | | can apply to limited | | | | | | |
| | | rovals under paragraph (b) | | | | | | |
| | of this section | n. | | | | | | |
| 5 | The modular | transmitter must be tested | Device is tested external to a host in a | Y | | | | |
| | in a stand-alo | one configuration, <i>i.e.</i> , the | standalone configuration. | | | | | |
| | module must | not be inside another | _ | | | | | |
| | device during | g testing for compliance | | | | | | |
| | with Part 15 | requirements. Unless the | | | | | | |
| | transmitter m | nodule will be battery | | | | | | |
| | powered, it n | nust comply with the AC | | | | | | |
| | line conducte | ed requirements found in | | | | | | |
| | Section 15.20 | 07. AC or DC power lines | | | | | | |
| | | at/output lines connected to | | | | | | |
| | | nust not contain ferrites, | | | | | | |
| | unless they w | vill be marketed with the | | | | | | |
| | | Section 15.27(a)). The | | | | | | |
| | length of the | se lines shall be the length | | | | | | |
| | typical of act | tual use or, if that length is | | | | | | |
| | unknown, at | least 10 centimeters to | | | | | | |
| | | ere is no coupling between | | | | | | |
| | the case of th | ne module and supporting | | | | | | |

| | equipment. Any accessories, peripherals, or support equipment connected to the module during testing shall be unmodified and commercially available (see Section 15.31(i)). | | |
|---|---|---|---|
| 6 | The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number. (A) If using a permanently affixed label, the modular transmitter must be labeled with its own FCC identification number, and, if the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following: "Contains Transmitter Module FCC ID: XYZMODEL1" or "Contains FCC ID: XYZMODEL1." Any similar wording that expresses the same meaning may be used. The Grantee may either provide such a label, an example of which must be included in the application for equipment authorization, or, must provide adequate instructions along with the module which explain this requirement. In the latter case, a copy of these instructions must be included in the application for equipment authorization. (B) If the modular transmitter uses an electronic display of the FCC identification number, the information must be readily accessible and visible on the modular transmitter or on the device in which it is installed. If the module is installed must display a label referring to the enclosed module. This exterior label can use wording such as the following: "Contains FCC certified transmitter module(s)." Any similar wording that expresses the same meaning may be used. The user manual must include instructions on how to access the electronic display. A copy of these instructions must be included in the application for equipment authorization. | Refer to label format and location file. | Y |
| 7 | The modular transmitter must comply with any specific rules or operating requirements that ordinarily apply to a complete transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements. A copy of these instructions must be included in the application for equipment authorization. | Detail instructions for maintaining compliance are given in the Users Manual. | Y |

| 8 | The modular transmitter must comply | The EUT is compliant with all | Y |
|---|--|--------------------------------------|---|
| | with any applicable RF exposure | applicable RF exposure requirements. | |
| | requirements in its final configuration. | RF Exposure is addressed in the RF | |
| | | exposure exhibition. | |

A **limited modular approval** may be granted for single or split modular transmitters that do not comply with all of the above requirements, *e.g.*, shielding, minimum signaling amplitude, buffered modulation/data inputs, or power supply regulation, if the manufacturer can demonstrate by alternative means in the application for equipment authorization that the modular transmitter meets all the applicable Part 15 requirements under the operating conditions in which the transmitter will be used. Limited modular approval also may be granted in those instances where compliance with RF exposure rules is demonstrated only for particular product configurations. The applicant for certification must state how control of the end product into which the module will be installed will be maintained such that full compliance of the end product is always ensured.

S.C. Wang

Executive Vice President

Compliance Certification Services Inc.