| Applica | Applicant/Grantee Dell Inc./ E2K | | | | | | |
|--------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------------|--------------|--|--|--|--|
| FCC ID: E2K-DWRFID1501 | | | | | | | |
| Section 15.212 Modular Transmitters | | | | | | | |
| Request | \square | | | | | | |
| | Requirements | est for Limited Modular Approval EUT Conditions | Comply (Y/N) | | | | |
| Single Modular Approval Requirements | | | | | | | |
| 1 | The radio elements of the modular | The module has no shield, limited | Ν | | | | |
| | transmitter must have their own | modular approval is being requested (see | | | | | |
| | shielding. The physical crystal and | item 5 below). | | | | | |
| | tuning capacitors may be located | | | | | | |
| | external to the shielded radio elements. | | | | | | |
| 2 | The modular transmitter must have | The modular transmitter had buffer on | Y | | | | |
| | buffered modulation/data inputs (if such | (BCM58102) chip | | | | | |
| | inputs are provided) to ensure that the | | | | | | |
| | module will comply with Part 15 | | | | | | |
| | requirements under conditions of | | | | | | |
| 2 | excessive data rates or over-modulation. | | X 7 | | | | |
| 3 | The modular transmitter must have its | The modular transmitter had its own | Y | | | | |
| | own power supply regulation. | power supply regulation on (PCM58102) ship (3.2VDC) | | | | | |
| 4 | The modular transmitter must comply | (BCM58102) chip (3.3VDC) The requirements of antenna connector | Y | | | | |
| 4 | with the antenna and transmission | and spurious emission have been | 1 | | | | |
| | system requirements of Sections 15.203, | fulfilled. Please reference the exhibition | | | | | |
| | 15.204(b) and 15.204(c). The antenna | Test Report. This module is intended for | | | | | |
| | must either be permanently attached or | OEM integrator only and limited to host | | | | | |
| | employ a "unique" antenna coupler (at | with brand: DELL and model: P48F, | | | | | |
| | all connections between the module and | P62G. There were including | | | | | |
| | the antenna, including the cable). The | professional installation in antenna part. | | | | | |
| | "professional installation" provision of | | | | | | |
| | Section 15.203 is not applicable to | | | | | | |
| | modules but can apply to limited | | | | | | |
| | modular approvals under paragraph (b) | | | | | | |
| | of this section. | | | | | | |
| 5 | The modular transmitter must be tested | LOOP antenna had fixed on PCB board. | Y | | | | |
| | in a stand-alone configuration, <i>i.e.</i> , the | | | | | | |
| | module must not be inside another | | | | | | |
| | device during testing for compliance | | | | | | |
| | with Part 15 requirements. Unless the | | | | | | |
| | transmitter module will be battery | | | | | | |
| | powered, it must comply with the AC line conducted requirements found in | | | | | | |
| | Section 15.207. AC or DC power lines | | | | | | |
| | and data input/output lines connected to | | | | | | |
| | the module must not contain ferrites, | | | | | | |
| | unless they will be marketed with the | | | | | | |
| | module (see Section 15.27(a)). The | | | | | | |
| | length of these lines shall be the length | | | | | | |
| | typical of actual use or, if that length is | | | | | | |
| | unknown, at least 10 centimeters to | | | | | | |
| | insure that there is no coupling between | | | | | | |

| | | 1 | |
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| | the case of the 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 | The FCC ID / IC will be display on | Y |
| 0 | equipped with either a permanently | device which referring to the enclosed | - |
| | affixed label or must be capable of | module. The instruction on the labeling | |
| | electronically displaying its FCC | rule of the end product has been stated in | |
| | identification number. | the user's manual of this module. Please | |
| | (A) If using a permanently affixed label, the | | |
| | modular transmitter must be labeled with its own | also see the exhibition Label Sample. | |
| | 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 inside another device, then the outside | | |
| | of the device into which 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. | | |
| 7 | The modular transmitter must comply | | Y |
| | 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 | | |
| L | | I | |

| | application for equipment authorization. | | | | |
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| 8 | The modular transmitter must comply | | Y | | |
| | with any applicable RF exposure | | | | |
| | requirements in its final configuration. | | | | |
| A limited modular approval may be granted for single or split modular transmitters that do not comply with | | | | | |
| all of the above requirements, <i>e.g.</i> , 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. | | | | | |

Signature___

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