

OEM Installation Guidance

For Dell RFID 13.56MHz Wireless Module

Model Name: DWRFID2404

FCC ID: E2K-DWRFID2404, IC: 1514B-DWRFID2404

General

This module is only approved for use by Dell in its own products. OEM integrator must ensure that there is no instruction provided in the user manual or customer documentation indicating how to install or remove the transmitter.

List of applicable FCC rules

FCC Rule parts 15.225 is applicable to this module. These are the rules that specifically establish the bands of operation, the power, spurious emissions, and operating fundamental frequencies.

Summarize the specific operational use conditions

This module does not have its own RF shielding, and was tested inside a specific platform (model: P142F; Brand: DELL). This module was approved under limited modular approval with restriction in the next section.

Limited module procedures

This module was approved as limited modular approval, and is only valid on the specific host platform (Brand: DELL; model: P142F), any new host platform requires re-testing and a separate class II permissive change.

The new host platform must follow the following test plan to verify that the additional hosts other than the specific host originally granted meets the requirements to satisfy the module limiting conditions:

Standard Clause	Test Items	Test Mode
15.207	AC Power Line Conducted Emissions	Retest on the new host platform
15.215	20dB Spectrum Bandwidth	Retest on the new host platform
2.1049	99% OBW Spectrum Bandwidth	Retest on the new host platform
15.225	Frequency Stability	Retest on the new host platform
15.225	Field Strength of Fundamental Emissions	Retest on the new host platform
15.209	Radiated Spurious Emissions	Retest on the new host platform
2.1091/2.1093	RF Exposure	Retest on the new host platform

Trace antenna designs

Not applicable.

RF exposure considerations

This module was tested inside a specific platform (Brand: DELL; model: P142F). Any new host platform requires re-testing and a separate class II permissive change.

Antennas

This module was approved with the following antenna:

Operating Frequency	Antenna Part Number	Antenna Type
13.56 MHz	81ELBE15.G25 (DC33002YP2L)	Loop Antenna
13.56 MHz	F-0W-FH-6194-001-00 (DC33002YF0L)	Loop Antenna

Label and compliance information

Appropriate labels must be affixed to the product that complies with applicable regulations in all respects. The regulatory label on the final system must include the statement: “Contains FCC ID: E2K-DWRFID2404 and/or IC: 1514B-DWRFID2404”.

OEM integrator must ensure that a user’s manual or instruction manual must be included with the final product that contains the regulatory statements as required by applicable law. Including but not limited to:

USA—Federal Communications Commission (FCC)

FCC COMPLIANCE STATEMENT:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

INFORMATION TO USER:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the distance between the equipment and the receiver.
- Connect the equipment to outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Canada - Industry Canada (IC)

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme avec Industrie Canada exempts de licence standard RSS (s). L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

REGULATORY COMPLIANCE WEBSITE

The Regulatory Compliance website is located at:

Dell.com/regulatory_compliance

Product Safety, EMC and Environmental Datasheets for Dell products are located at:

Dell.com/regulatory_compliance_datasheets

Information on test modes and additional testing requirements

Additional guidance for testing host products is given in KDB Publication 996369 D04 Module Integration Guide. This module was tested in specific host platform, any new host platform or any co-location with other transmitters requires re-testing and a separate class II permissive change.

Additional testing, Part 15 Subpart B disclaimer

The modular transmitter is **only** FCC authorized for the specific rule parts (i.e., FCC transmitter rules) listed on the grant, and that the host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification. The final host product still requires Part 15 Subpart B compliance testing with the modular transmitter installed.

Note EMI Considerations

Host manufacture is recommended to use D04 Module Integration Guide recommending as "best practice" RF design engineering testing and evaluation in case non-linear interactions generate additional non-compliant limits due to module placement to host components or properties.

For standalone mode, reference the guidance in D04 Module Integration Guide and for simultaneous mode; see D02 Module Q&A Question 12, which permits the host manufacturer to confirm compliance.

How to make changes

OEM integrators must ensure that its product is electrically identical to Dell's designs. Any modifications to Dell's designs must contact Dell and obtain permission from Dell.

Contact information:

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