



Honeywell International Inc
Honeywell Safety and Productivity Solutions
9680 Old Bailes Road
Fort Mill, SC 29707 USA

March 14, 2018

- IM14 Modular Approval Letter -

Dear Application Examiner:

Honeywell Safety and Productivity Solutions is seeking modular approval for Model: IM14, FCC ID: HD5-IM14. The radio meets the requirements for modular approval as detailed in FCC 15.212. Compliance to each of the requirements is described below:

1. **“The modular transmitter must have its own RF shielding.”**
Honeywell has provided the Model: IM14 radio as a shielded assembly. The technical report demonstrates the radio complies with the transmitter emissions limits defined by the regulatory agencies.
2. **“The modular transmitter must have buffered modulation/data inputs.”**
The communication to the radio operates using digital technology. The IM14 has buffered data inputs to prevent excessive data rates and over-modulation under all conditions and assure compliance with Part 15. Please see the Schematics exhibit.
3. **“The modular transmitter must have its own power supply regulation.”**
The IM14 radio board uses onboard voltage regulation to assure compliance with Part 15 requirements. Please see the Schematics exhibit. The technical report exhibit contains AC power line conducted emissions data to demonstrate compliance.
4. **“The modular transmitter must comply with the antenna requirements of Section 15.203 and 15.204(c).”**
The IM14 radio module utilizes unique connectors. RF cables for the system must be supplied by Honeywell so antenna / cable system gain remains below the +6 dBi linear gain limit. Some RFID antennas are sourced with standard connectors. The approved antenna list is published in the user documentation provided with products that utilize this radio module. Please see Antenna information exhibit and internal photos exhibit.

This application requests the IM14 be granted Limited Modular Approval to accommodate Professional Installation under Section 15.203. RFID technology is used in specific locations and is limited in marketing to industrial and commercial users. RFID products are never sold to the general public. The installations are always overseen by systems engineers or RFID certified partners.

5. **“The modular transmitter must be tested in a stand-alone configuration.”**
The IM14 radio module was tested in a stand-alone configuration. Please see the technical report and test setup photos exhibit, which show there was no use of ferrites or decoupling devices to reduce emissions of the module.



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6. “The modular transmitter must be labeled with its own FCC ID number.”

The IM14 module will show the FCC ID. If the FCC ID number will not be visible when the module is installed inside a host device, the exterior of the host device will be labeled with text to show the host device “Contains TX FCC ID”. Please see FCC ID label & location exhibit.

7. “The modular transmitter must comply with any specific rule or operating requirements applicable to the transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements.”

The IM14 radio operates as defined in the Theory of Operation and is compliant with all applicable FCC rules. Detailed instructions for maintaining compliance are given in the User Manual and regulatory Compliance Insert.

8. “The modular transmitter must comply with any applicable RF exposure requirements.”

The IM14 is compliant with all applicable RF exposure requirements. Please see RF Exposure Exhibit. The exposure calculations and installation details are defined for mobile devices only. Additional antennas approved via permissive changes will address the RF safety concerns as defined within the regulations.

Please contact me if you have additional questions. Your attention to this matter is greatly appreciated.

Best regards,

Sincerely,

Sean MacKellar

Product Compliance, Sr. Compliance Engineer

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