



TCB Workshop

RFID

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TCB Workshop Santa Clara, CA

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RFID



➤ **Traditional RFID**

- ▶ Operate under Section 15.225 (13.553-13.567 MHz)
- ▶ Passive devices (Authorization not required) or self-powered transmitter

➤ **New Rules (2nd R&O and MO&O) in FCC 01-149 (Docket 01-278)**

- ▶ http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-149A1.pdf
- ▶ Allows data transmission in Section 15.231
- ▶ Modifies the FS limit for 13 MHz RFID systems
 - ▶ Harmonize limits with European Telecommunications Standard Institute (ETSI)
 - ▶ Allows operation in the 13.11-14.01 MHz band
 - Including the 13.36-13.41 MHz Restricted Band

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➤ **Third R &O FCC 04-98 (Docket 01-278)**

- ▶ http://hraunfoss.fcc.gov/edocs_public/attachmatch/FC-C-04-98A1.pdf
- ▶ SAVI Petition for Reconsideration (Under 15.231)
 - ▶ RFID in the 433.5-434.5 MHz Band (433 MHz Band)
 - ▶ Commercial and Shipping
 - ▶ Increase field strength for control signals
 - ▶ Increase the 15.231(e) transmission duration to 120 seconds



➤ **New Final Rules (Section 15.240)**

- ▶ Commercial and industrial shipping containers (ie: ports, rail terminals, and warehouses)
- ▶ Two way operation to interrogate and load data into devices
- ▶ FS 11,000 microvolts/meter @ 3m (average detector)
- ▶ Peak not to exceed 55,000 microvolts/meter @ 3m
- ▶ Transmission duration not to exceed 60 seconds
- ▶ Reinitiate interrogation in case of transmission error
- ▶ Silent period between transmissions not less than 10 seconds
- ▶ Section 15.209 limits outside band
- ▶ Tag can be authorized with device or separately

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➤ **Additional Provisions to the Rule**

- ▶ 40 kilometer distance from certain DoD radar sites
- ▶ FCC and NTIA receive device location information

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TCBs must audit a certain number of devices based on the number of grants issued.

Report cases of non-compliance to the Commission at rfabina@fcc.gov.