

Explanation of Experiment

Background:

V2X is a DoD contractor that integrates radar systems into a variety of defense technologies. As a result, it needs to test a ground-based radar to make advances needed by V2X's customers.

The current application requests a grant of a new experimental license for testing of a RADA RPS-202 radar. The need for this new license arises due to additional functions of the RPS-202 that are not duplicated by like systems. The RPS-202 in its application can be raised to a height between 6 and 40ft AGL. V2X requests that in lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits requested below. A like system in a similar environment has been previously authorized for operation by the FCC under license WB9XFD.

Synopsis:

- RADA Radar RPS-202
- Spectrum required: 3100MHz to 3500MHz
- Time of use: 0800 – 1700 EST
- Peak Power Amplifier Output: 3840 Watts
- Duty Cycle: 15%
- Average Power Amplifier output: 576 Watts
- Antenna Gain: 27 dBi
- ERP: 1,928.218 kW (peak, pulsed)
- Emission Designators:
 - 40M0Q1N
- Reference: Indianapolis (Marion), IN - NL 39-47-29; WL 86-03-34

Radar System Under Development:

The radar is used to detect objects on V2X property per the RADA radar design parameters. The radar is operated using the power and modulation settings required for safety, reduced interference, and effective operation. The radar will be used for detection within the V2X facility at 6125 E 21st street, Indianapolis, IN 46219.

Test Time: 0800 to 1700 EST

During testing, the time required to transmit radar data is less than 60 minutes. Transmitter use will be intermittent during that period. During the remainder of the testing, the RADA radar will not be transmitting. For the ongoing testing and development, the radar is expected to be in use less than a total of 180 minutes per day, and only intermittently across those minutes.

RF Safety Compliance:

V2X will use its established RF Safety Plan for ground vehicle demonstration testing to ensure that no personnel are subjected to RF power density levels exceeding the Maximum Permissible Exposure limits (MPE) set forth in 47 C.F.R. § 1.1310 and the guidelines in FCC OET Bulletin Number 65. The existing RF safety plan limits the time that the radar can be tested, it cordons off the test area at a distance of 7 meters from the transmitter, which is the only area where the signal strength could exceed the maximum exposure limit, and there are signs posted alerting other V2X personnel to the testing. The V2X plant is a secure facility and it is not accessible to the general public. All RF exposure levels will be below the limits set forth in the Commission's Rules, therefore the proposed operations are in compliance with 47 C.F.R. 1.1307(b) of the Commission's Rules.

Stop Buzzer Point of Contact:

The Stop Buzzer Point of Contact for the proposed operations is:

Michael Revell
michael.revell@gov2x.com
317-503-0438 (cell)

Conclusion:

This license is being filed to allow V2X's testing of the RADA RPS-202 radar. The testing is expected to be conducted from November 1, 2026 through October 31, 2027. For questions, please contact Paul Thieme, Spectrum Manager, V2X, paul.thieme@gov2x.com or 317-306-3847.

V2X Indianapolis Test Site – Antenna Sketch

