

**Why an experimental license is necessary:**

The purpose of this application is to support integration testing and equipment operational checks of a low power radar system.

**Operation Description:**

Synthetic Aperture Radar (SAR) system will be tested indoors on ground at Bingen and will operated on a UAS at the Pendleton UAS Test range.

Table (1) lists the equipment specifications, including frequency band of operation, transmitter output power, emissions, antenna types and gains, as well as maximum ERP.

Frequency Data	
Transmit	16.4 GHz
Transmitter Data	
Transmitter Model	REA-KC01
Transmitter Manufacturer	IMSAR LLC.
Transmitter Power Output	1 Watt
Antenna Data	
Antenna Gain	25 dBi Gain Electronically Scanned Array (ESA)
Power ERP	193 Watts
Emission Data	
Emissions	2G00F0N

**Table 1 – Equipment Data**

Table (2) lists the locations/areas of operations, as well as the station class of the operation.

City	State	Latitude	Longitude	Radius (KM)	Station Type
Bingen	WA	45-42-23N	121-27-23W	5	Fixed
Pendleton UAS Test Range	OR	45-41-21 N	118-50-32 W	50	Mobile/Airborne 15,000 Feet Altitude

**Table 2 – Location Data**

**Operation Period:**

Start Date: April 1, 2022

Stop Date: April 30, 2024

**Stop Buzzer POC:**

The “Stop Buzzer” point of contact is: Insitu Operations Center at 1-509-637-4691