

## **Operational Description**

### *Introduction*

Unison Labs requests Special Temporary Authority for a period of six months to operate three experimental 77 GHz radar systems on a temporary-fixed basis to evaluate the suitability of such systems for non-automotive applications such as activity monitoring and other safety, homeland security, and related applications. An STA is necessary because FCC rules restrict radar operations in this band to vehicular uses only, inconsistent with the proposed temporary-fixed operations.

To the extent necessary, we respectfully request a waiver of any applicable station identification rules, such as, for example, those provided in 47 C.F.R. § 5.115, compliance with which is not practicable for this type of radio system.

### *Operational Configuration / Siting*

The radar systems involved in these operations will be deployed only within a restricted-access industrial facility within a 500 m radius of the coordinates 29-45-08.8 N, 95-11-58.8. Transmitters will be installed no more than 5 meters from the ground and should therefore be shielded by buildings and other clutter from any surrounding roads. In addition, because vehicular radar systems are typically sensitive only in a narrow range of elevation angles near the horizon, the modest elevation of the radar transmitter will likely remove it from the field of view of any nearby vehicular radar receivers.

Finally, the transmitters used in these operations are designed for use in commercial vehicular radar systems. Therefore, to the extent that any measurable signal is detectable beyond the boundaries of the test environment, this should cause no more interference to nearby automotive radar systems than would be caused by another nearby vehicular radar.

### *Noninterference*

Unison Labs understands that any operations under the requested STA would be on a noninterference basis to licensed users.

“Stop buzzer” contact information is listed below:

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