

NARRATIVE STATEMENT

Pursuant to 47 C.F.R. Section 5.3(j) and 47 C.F.R. Section 5.61 of the FCC’s rules, Echodyne Corp. hereby respectfully requests a special temporary authority (“STA”) from August 18, 2023 to November 18, 2023 to operate in the 15.7 – 16.6 GHz band to test its EchoShield radar.

A. Purpose of Operation and Need for Special Temporary Authority:

Echodyne Corp., headquartered in Kirkland, Washington, is developing innovative uses of radar by creating high performance ultra-low cost, size, weight, and power (“C-SWaP”) electronically scanning radars leveraging its Metmaterial Electronically Scanning Array (“MESA”) technology.

Under the STA requested in this application, Echodyne proposes to demonstrate its EchoShield radar, which is an electronically scanned pulsed Doppler Radar. Grant of the STA will allow Echodyne to demonstrate its equipment and obtain immediate feedback from potential customers.

B. Location of Proposed Operation:

Echodyne proposes to test the radar at a fixed location within the area described below.

Location	Coordinates (NAD83)	Radius of Operation
Port Hueneme	34° 8’ 42” N 119° 12’ 36” W	10km

The testing is being done in conjunction with...

C. Technical Specifications:

1. Frequencies Desired

Echodyne requests authorization to operate in the 15.7 – 16.6 GHz band.

2. Effective Radiated Power

The units to be deployed are configured to operate at a peak maximum transmitter power output of 180.0W, and a peak maximum effective radiated power of 79.00kW. Echodyne will reduce the actual powers to the minimum power needed for successful demonstration, based on set-up, and testing at the proposed locations. Operations will be conducted to comply with rules relating to human exposure to radiation.

3. Modulation and Emissions

The EchoShield radar operates using pulsed linear frequency modulation. The primary emission designator is 250MQ3N. The emissions will not extend beyond the frequency bands requested.

4. Antenna Information

The mobile base station radar transmitter antennas will not, under any circumstances, extend more than 6 meters above ground or a building. Operations will occur in Port Hueneme, CA.

5. Equipment To Be Used

Echodyne will conduct the testing with a single unit.

D. Protection Against Causing Interference:

In the event that Echodyne receives a complaint of harmful interference from the proposed operation, Echodyne will take immediate action to address interference. The company has designated Mr. Matthew Ugarph (contact information below) to act as the “Stop Buzzer” for this purpose.

Furthermore, the length of the planned demonstration period is short, extending only from August 18, 2023 to November 18, 2023, and during that period the proposed operations will be limited in scope. In summary, the analysis conducted by Echodyne indicates the proposed operation should not interfere with any licensed operation.

E. Restrictions on Operation

Echodyne recognizes that the operation of any equipment under experimental authority must not cause harmful interference to authorized facilities. Should interference occur, Echodyne will take immediate steps to resolve the interference, including discontinuing operations if necessary. In addition, Echodyne will advise all personnel using the equipment that permission to operate has been granted under experimental authority issued to Echodyne, that such operation is strictly temporary, and that the equipment may not cause harmful interference.

F. Public Interest:

Echodyne submits the issuance of an STA as requested is in the public interest, convenience, and necessity. Grant of an authorization will permit Echodyne to refine its innovative radar equipment and enhance public safety.

G. Contact Information:

For questions, please contact:

Matthew Semovoski
Solutions Engineer
Echodyne Corp.
12112 115th Ave NE
Kirkland, WA 98034
(563) 613-3722
spectrum@echodyne.com
msemovoski@echodyne.com

In the unlikely event interference concerns should arise during the period of authorization requested by this application, please contact the company's "Stop Buzzer" identified below:

Matthew Ugarph
Director of Solutions Engineering
Echodyne Corp.
12112 115th Ave NE
Kirkland, WA 98034
(563) 613-3722
spectrum@echodyne.com
mugarph@echodyne.com