

ECHODYNE

2380 116TH AVE NE, BELLEVUE, WA 98004

July 18, 2018

Federal Aviation Administration
Office of Spectrum Policy and Management
ASR-1
800 Independence Ave. SW
Washington DC 20591

Dear Sirs:

Pursuant to 47 CFR §87.147(d), we are notifying you that Echodyne Corp. will be filing an application with the FCC for equipment certification of a ground-based radar operating in the 24.45-24.65 GHz radionavigation band.

We hereby provide the information required by 47 CFR §87.147(d) as follows:

1. Equipment Description. Echodyne's MESA-SSR radar is a small, lightweight electronically scanning radar designed to provide ground-based detect and avoid capability for aeronautical radionavigation applications. The radar operates in the radionavigation frequency band at 24.45-24.65 GHz, using three channels of 45 MHz each with 15MHz of separation. It is a frequency modulated continuous wave radar with an absolute maximum peak transmitter power of 4 watts, typically set at 2-3.5 watts. The MESA-SSR hardware is nearly identical to Echodyne's airborne radar (MESA-DAA) that you previously reviewed.

2. Manufacturer's Identification. The manufacturer's identification for the radar is FCC ID: 2ANLB-MESASSR00053.

3. Antenna Characteristics.

Dimensions: 20.3cm x 16.3cm x 4cm

Polarization: Linear, Horizontal

Cross-pol: 20 dB (typ.)

Maximum field of regard: Azimuth $\pm 60^\circ$, Elevation $\pm 40^\circ$

Directivity: Gain 22 dBi (max) or 21dBi (typ). Gain roll-off = 2 dB typ. over full field of regard. HP Beam width = 4°(AZ plane), 12°(EL plane) one-way. Side Lobe Level = 14 dB (average) one-way.

4. Rated Output Power. 350W $\pm 25\%$ EIRP.

5. Emission Type and Characteristics. FXN frequency modulated continuous wave with linear ramp.

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6. Frequencies of Operation.

Channel A1-A: 24,467.5 MHz – 24,512.5 MHz

Channel A1-B: 24,527.5 MHz – 24,572.5 MHz

Channel A1-C: 24,587.5 MHz – 24,632.5 MHz

7. Essential Receiver Characteristics: Not applicable, no protection required.

We will send you the Form 731 Confirmation Number as soon as we receive it so that you may view the full application.

We are happy to answer any other questions you may have. You may contact me at andrea@echodyne.com or at (206) 399-9793.

Best regards,



Andrea Radosevich
General Counsel