

REQUEST FOR EXPERIMENTAL LICENSE

Pursuant to Sections 5.3(j) and 5.51(a) of the Commission's rules, Joby Aero, Inc. ("Joby") requests a new conventional experimental radio service station license for a period of two years.¹ The purpose of this license will be to test the efficacy of radio equipment for redundant flight telecommand and telemetry purposes.

Joby develops and manufactures major aircraft components. Joby requests an experimental license in order to test and evaluate the performance characteristics of radio equipment manufactured by Silvus (Model # SC4240-147) and Advanced Microwave Devices (Model # VST1) in the 1435-1525 MHz L band and Silvus (Model # SC4240-235) in the 2360-2395 MHz S band for redundant flight telecommand and telemetry purposes. Aircraft using the equipment will operate in the bands during daylight hours. Flight tests typically will be one hour in duration and will utilize the requested frequencies up to a maximum altitude of 15,000 feet above mean sea level and within 50km of the fixed location. Test equipment will be operated only on a maximum of two aircraft and two ground stations at a time, though multiple aircraft may operate the equipment on any given day.

- FX (L Band): Up to 2 transmitters @ 4W (124W ERP) 8M90D7W
- FX (S Band): Up to 4 transmitters @ 4W (247W ERP) 8M90D7W
- Aeronautical MO:
 - L Band: Up to 2 transmitters @ 4W (2.5W ERP) 8M90D7W
 - L Band: Up to 2 transmitters @ 2W (1.2W ERP) 13M0F3F
 - S Band: Up to 4 transmitters @ 4W (2.5W ERP) 8M90D7W

The proposed ground station will utilize a directional antenna. The beamwidth for L Band (1435-1525 MHz) operations will be 15.1 degrees HPBW; for S Band (2360-2395 MHz) operations, beamwidth will be 14 HPBW. Joby's ground station antenna will be track-mounted, and will rotate, elevate and aim itself at Joby's aircraft during flight operations. A copy of the antenna's gain pattern is attached hereto.

Joby also requests that the FCC expressly exempt the proposed station from the station identification requirements set forth in Section 5.115 of the Commission's rules.² This rule section provides that licensees may be exempted from these requirements if so specified by the terms of their station authorization. Because the subject equipment is not capable of transmitting station identification information in the mode required, Joby respectfully requests that any authorization issued for the proposed station include a condition expressly exempting the station from Section 5.115 of the Commission's rules.

The stop buzzer contact for the proposed operations is:

¹ 47 C.F.R. §§ 5.3(j), 5.51(a).

² 47 C.F.R. § 5.115

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The proposed operations will aid Joby in the testing and development of new flight technology of potential future benefit to the public. Accordingly, FCC approval of this request will serve the public interest, convenience and necessity.



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Antenna Brand: mWave
Antenna Model: RPD3-15-N-M0
Type: Standard
DPE#: RPD3-15
Mfgr. ID#: mWAVE
Date: 20 NOV 22

Description
3-ft. (0.9m)
Standard

Frequency Band
1.435 - 1.525 GHz

Polarization
Dual

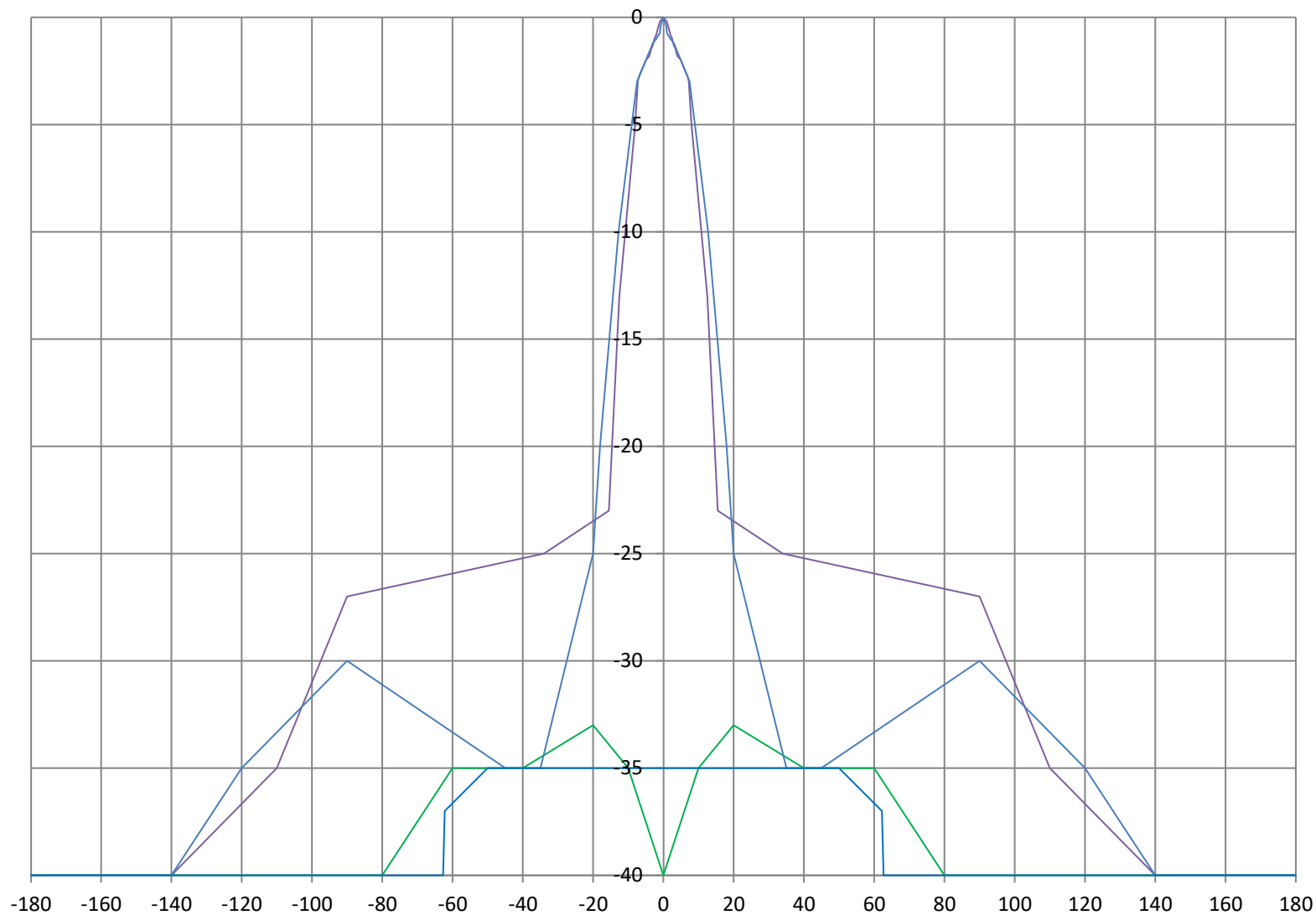
Midband Gain
19.73 dBi

Beamwidth
15.0°

Polarization
Horiz. / Vert.

Pattern
Symmetrical

Compliance



RPD3-15-N-M0 V-V
RPD3-15-N-M0 V-H
RPD3-15-N-M0 H-H
RPD3-15-N-M0 H-V

By: T. Dennen
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