Garmin International Exhibit B to FCC Form 442 File No. 1545-EX-CN-2023 (September 29, 2023)

Exhibit B Technical Characteristics

I. NTIA EIRP Limits

Garmin has taken appropriate precautions in system design to ensure the maximum effective isotropic radiated power ("EIRP") from the proposed re-radiation devices does not exceed -140 dBm / 24 MHz at a distance of 100 feet from the exterior of the building, as stipulated in the NTIA Red Book.

II. Technical Parameters and EIRP Calculations

Technical parameters of the re-radiation system for each GPS frequency band are provided below, including calculations for maximum EIRP pursuant to NTIA Redbook requirements. The NTIA standard equation for calculating maximum EIRP is:

$$P_{Tmax} = P_R + 20\log_{10} f + 20\log_{10}(30+d) - 27.55$$

Where P_{TMax} is the maximum permissible EIRP (dBm); P_R is the power received at 100 feet (30 m) from the building; *f* is the frequency in MHz; and *d* is the distance between the radiator and the closest exterior wall of the building (m).

Solving this equation with $P_R = -140 \text{ dBm}/24\text{MHz}$ and d=0 yields the maximum power allowed (P_{TMax}) for any single re-radiation device,













