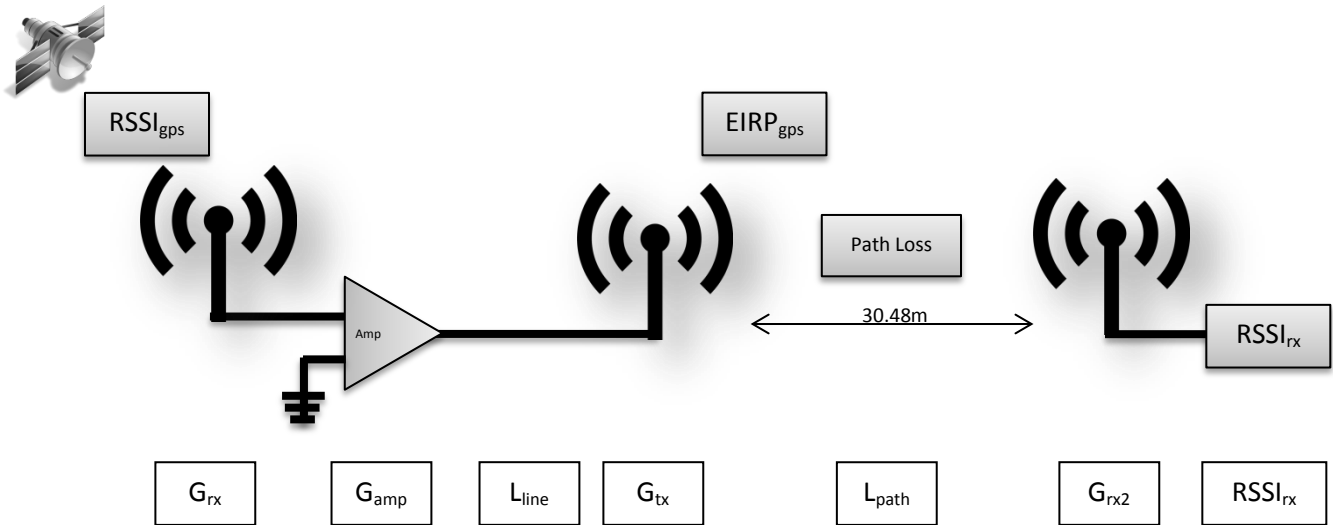


Compliance with section 8.3.28 of the NTIA Manual

Applicant hereby confirms that the experimental use conforms to parts a, e, g and h.

Calculations showing compliance with part f are presented on the following page.

Calculations of Fixed Re-Radiating System of Signals Received from the
Global Positioning System



$$\begin{aligned} \text{RSSI}_{\text{gps}} + G_{\text{rx}} + G_{\text{amp}} - L_{\text{line}} + G_{\text{tx}} - L_{\text{path}} + G_{\text{rx2}} &= \text{RSSI}_{\text{rx}} \\ -130\text{dB} + 35\text{dB} + 22\text{dB} - 9.25\text{dB} + 4.8\text{dB} - 65.65\text{dB} + 0\text{dB} &= \text{RSSI}_{\text{rx}} \\ \text{(avg GPS L1 receive power)} & \quad \text{(max)} \quad \text{(@1500MHz, 30.48m)} \end{aligned}$$

$$\text{RSSI}_{\text{rx}} = -143.10\text{dB @1500MHz, 30.48meters}$$

Supporting Calculations:

$$L_{\text{path}} = 20 \log(d) + 20 \log(f) + 20 \log\left(\frac{4\pi}{c}\right)$$

$$L_{\text{path}} = 20 \log(30.48\text{m}) + 20 \log(1500\text{MHz}) + (-27.55)$$

$$L_{\text{path}} = 29.68 + 63.52 - 27.55$$

$$L_{\text{path}} = 65.65\text{dB}$$

$$L_{\text{line}} = (5.1\text{dB}_{@1500\text{MHz}} / 100\text{ft} * 150\text{ft}) + (0.4\text{dB}/\text{connector} * 4 \text{ connectors}) = 9.25\text{dB}$$

$$\text{EIRP}_{\text{gps}} = -76.2\text{dB} = 2.3988 \times 10^{-8} \text{mW}$$