

WaveNet Link AX Installation and Operations Manual

If external antennas are utilized, and connected with the 2 meter cable mentioned in (a), then factor in 2.6 dB for the loss in the coaxial cable when calculating EIRP figures.

If the product is being deployed in a country not governed by FCC regulations, the installer should select a transmit power level setting appropriate for the antenna that is deployed to maintain compliance with regulations employed by that country.

Refer to Table 2.6 for Configuration Switch setting information.

b. **Antenna Unit** - See Appendix B.

3.1.1 EIRP Calculations in the 5.3 GHz Band

The following is an excerpt from CFR 47 Part 15.407 (a)(1):

For the band 5.25-5.35 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm+10logB, where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Based on the above rules, the Link AX (for the 5.3 GHz radio) must be configured by the installer to operate using the conditions in Table 3.1 below. These values assume a nominal loss of 1.0 dB cable loss for the Wireless Inc. supplied RF cable (6 foot length) that connects the ODU to the external antenna.

Table 3.1 – Maximum Transmit Power Level Setting vs. Antenna Type(for compliance with FCC EIRP limits) in the 5.3 GHz Band)

Antenna Type	Manufacturer P/N	Maximum Transmit Power Setting
6" External, Flat Panel, Plane Polarized.,17.5 dBi	Gabriel DFPD.5-52	0 dBm
9" Integrated, Flat Panel ,P lane Polarized, 18 dBi	RadioWaves WFP.75-5.2	0 dBm