Reference Distance (close-in distance) - d0 (in m)

Path Loss (at distance d > d0) - L (in dB)

Path Loss (at distance d0) - L0 (in dB)

Path Loss exponent - n

Transmitter Power - Pt (in dBm)

Receiver Power - Pr (in dBm)

**L = L0 + 10\*n\*log10(d/d0)**

**Pr(d) [in dBm] = Pt(d) [in dBm] - L(d) [in dB]**

* Parameters are set in a way to achieve transmission range upto 100m

Pr = -80 dBm

Pt = 20 dBm

→ L = 100 dB

L0 = 40.02 dB

n = 3

d0 = 1 m

→ d = 99.8466 m