

2.4GHz

	離 AP 最近點	離 AP 最遠(未隔牆)點	和 AP 隔著牆壁
Signal Strength	-30 dBm	-46 dBm	-61 dBm
SNR	43 dB	33 dB	16 dB
Transmission Rate	144 Mbps	144 Mbps	115 Mbps
Screenshot			

5GHz

	離 AP 最近點	離 AP 最遠(未隔牆)點	和 AP 隔著牆壁
Signal Strength	-33 dBm	-49 dBm	-53 dBm
SNR	60 dB	44 dB	40 dB
Transmission Rate	866 Mbps	866 Mbps	780 Mbps
Screenshot			

Signal strength is the power level of the radio signal received from the Wi-Fi router. Its unit is dBm, meaning that the signal power is in milliwatts and then taken a decibel.

SNR is the signal-to-noise ratio, it is the difference of signal power and noise power in dBm. Its unit is dB.

Transmission Rate is the amount of data transmitted in a given interval. Its unit is Mbps.

Answers

For each value, the longer the distance, the smaller the value. This is because signal strength follows the Friis formula. And thus SNR also decrease because $\text{SNR} = \text{signal strength} - \text{noise}$. Transmission rate also decreases because SNR decreases.

This is consistent with the values I measured.

The signal decay for 2.4G when going behind a wall is less severe than 5G because it has a lower frequency, and it penetrates walls better.

This is inconsistent with my measurements. It might be due to the APs that I connected to in 204 are too close to each other, and while I was moving behind the wall, my computer received signals from another AP.