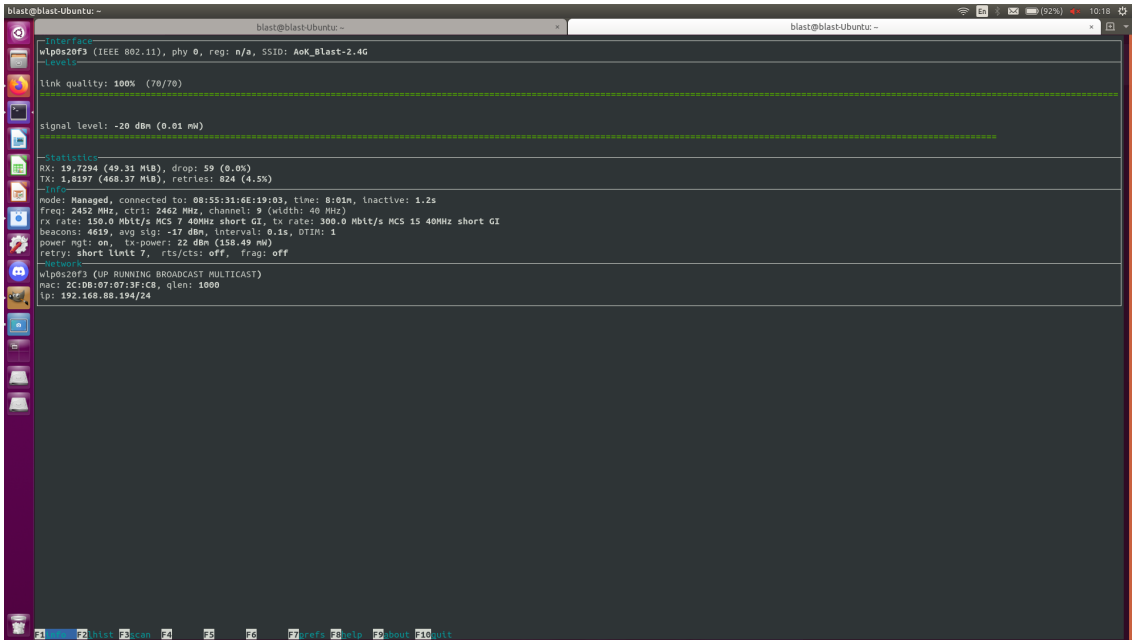
1. Near:

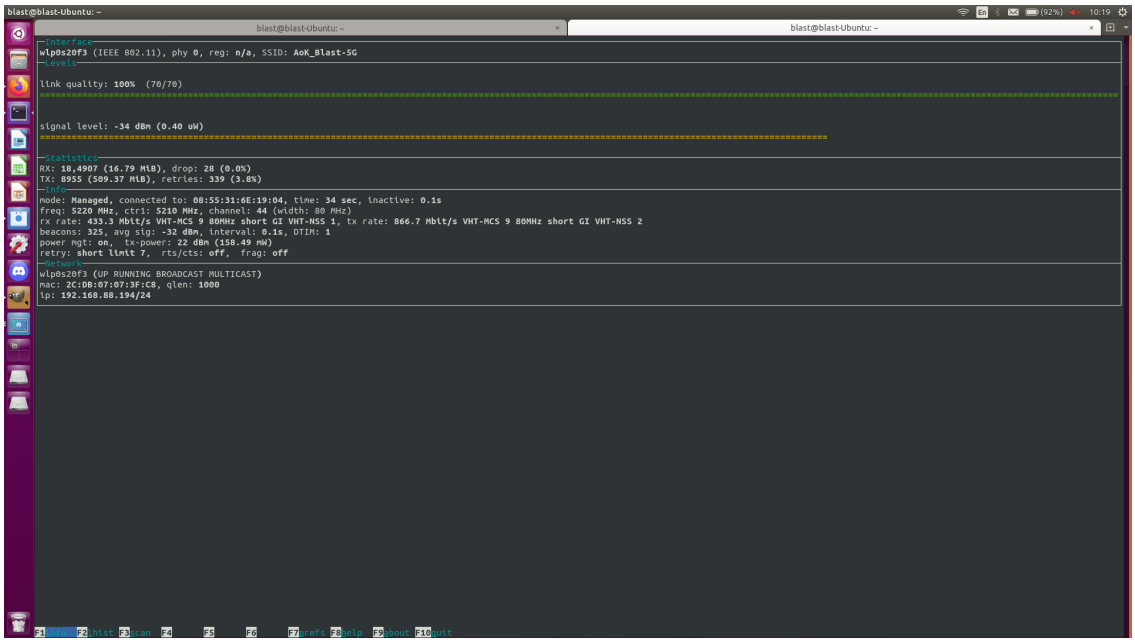
   2.4G:

   -20dBm



   5G:

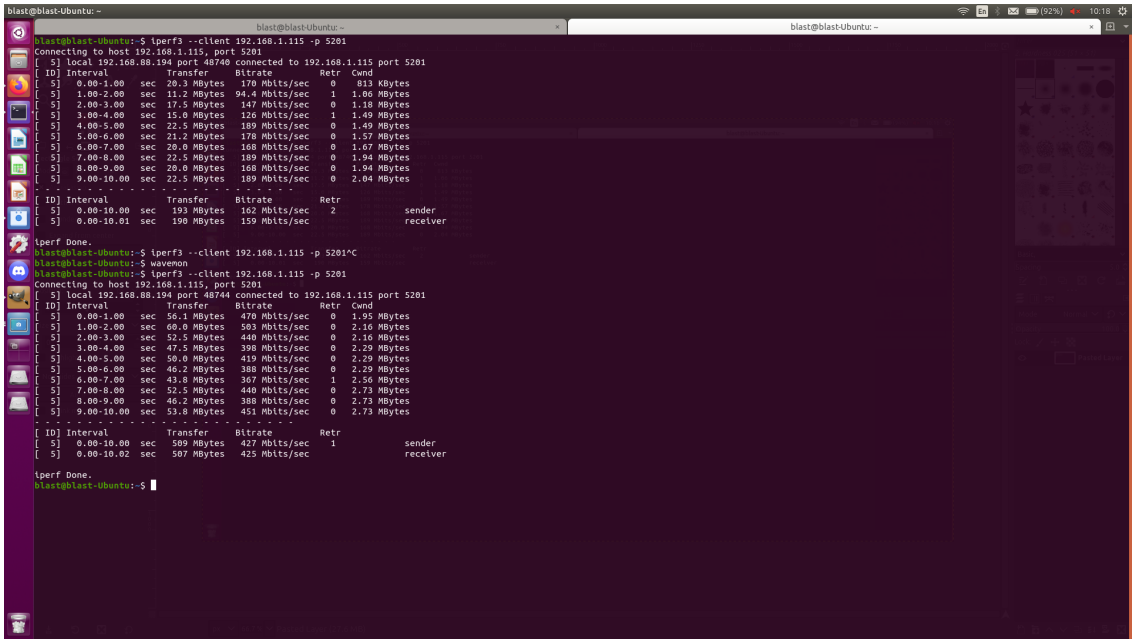
   -34dBm



   Iperf 2.4->5G:

   2.4G: $\frac{162+159}{2} = 161.5Mbit/s$

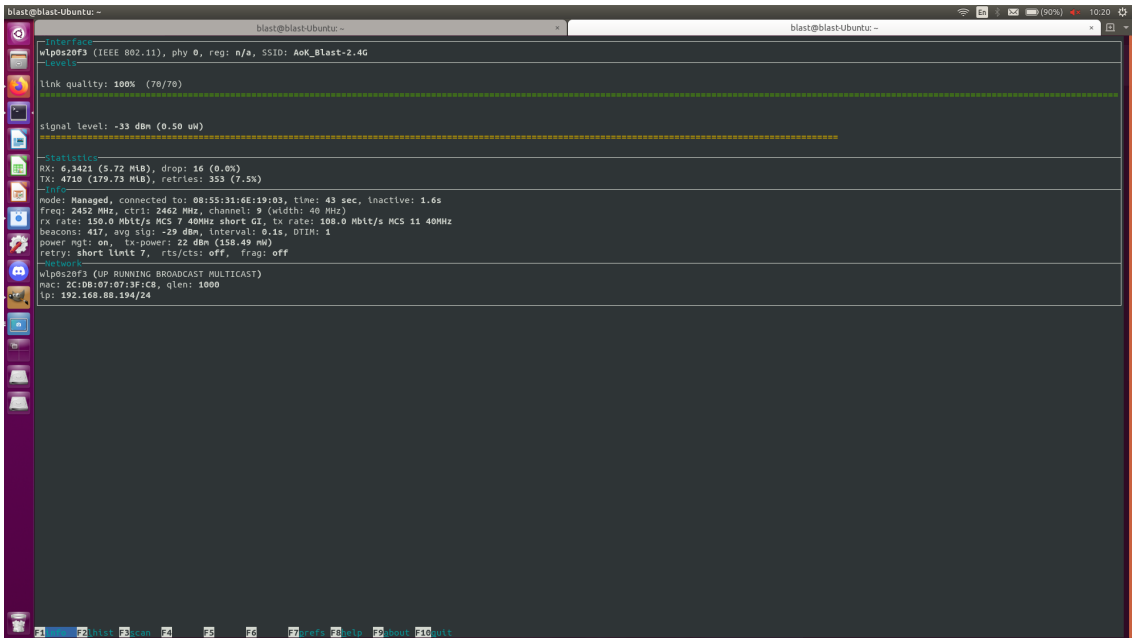
   5G: $\frac{427+425}{2} = 426Mbit/s$



2. 5m

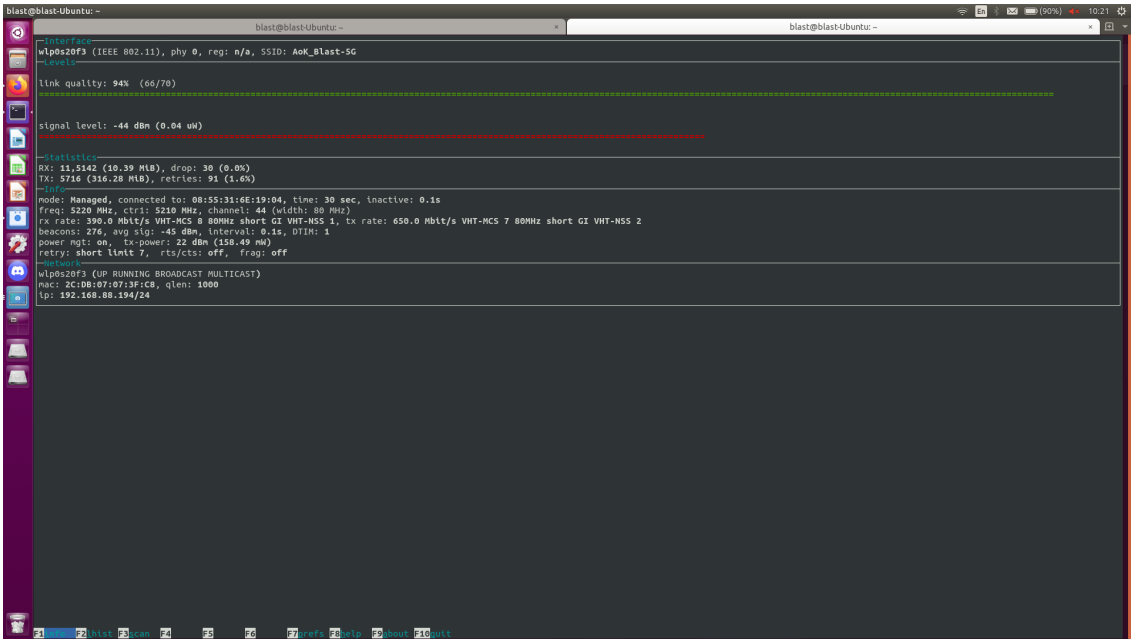
2.4G:

-33dBm



5G:

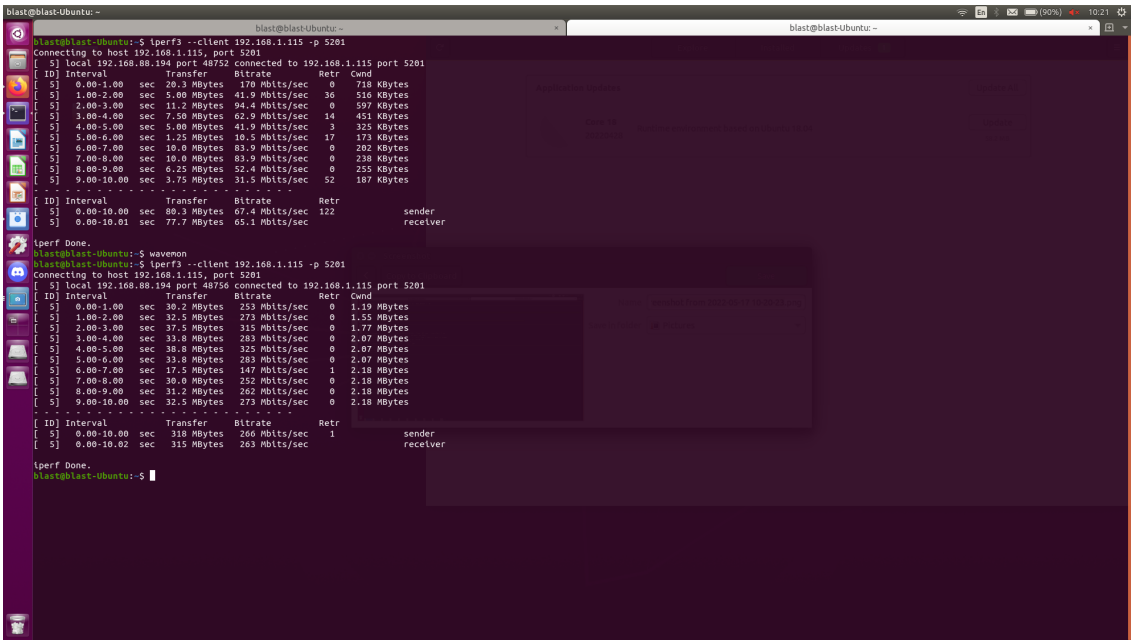
-44dBm



Iperf:

2.4G: $\frac{67.4+65.1}{2} = 66.25Mbit/s$

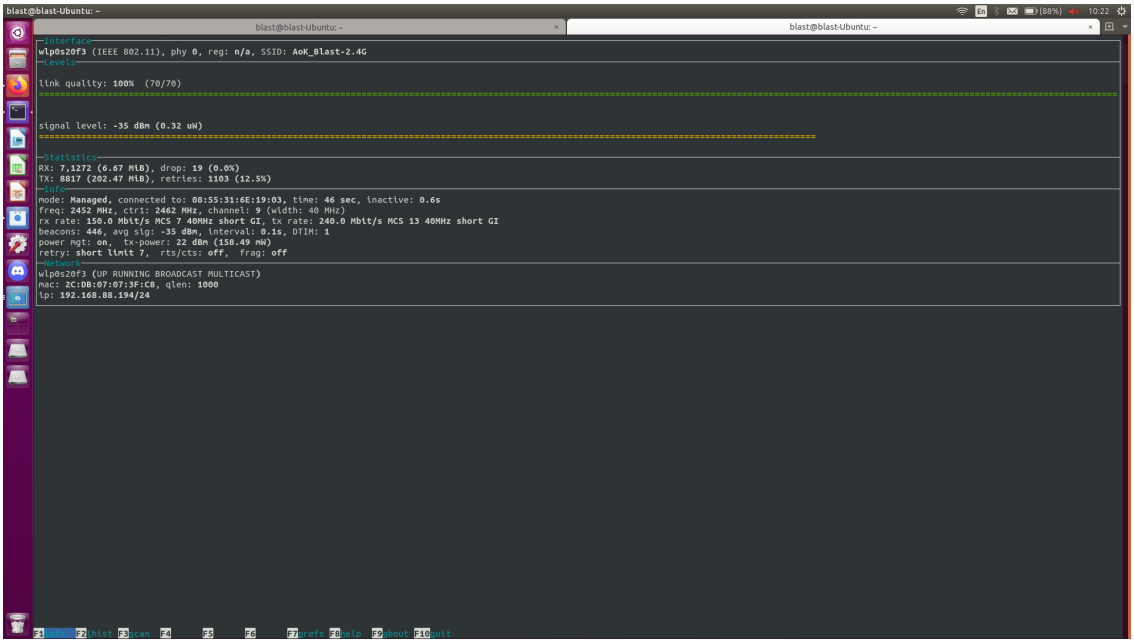
5G: $\frac{266+263}{2} = 264.5Mbit/s$



3. Wall

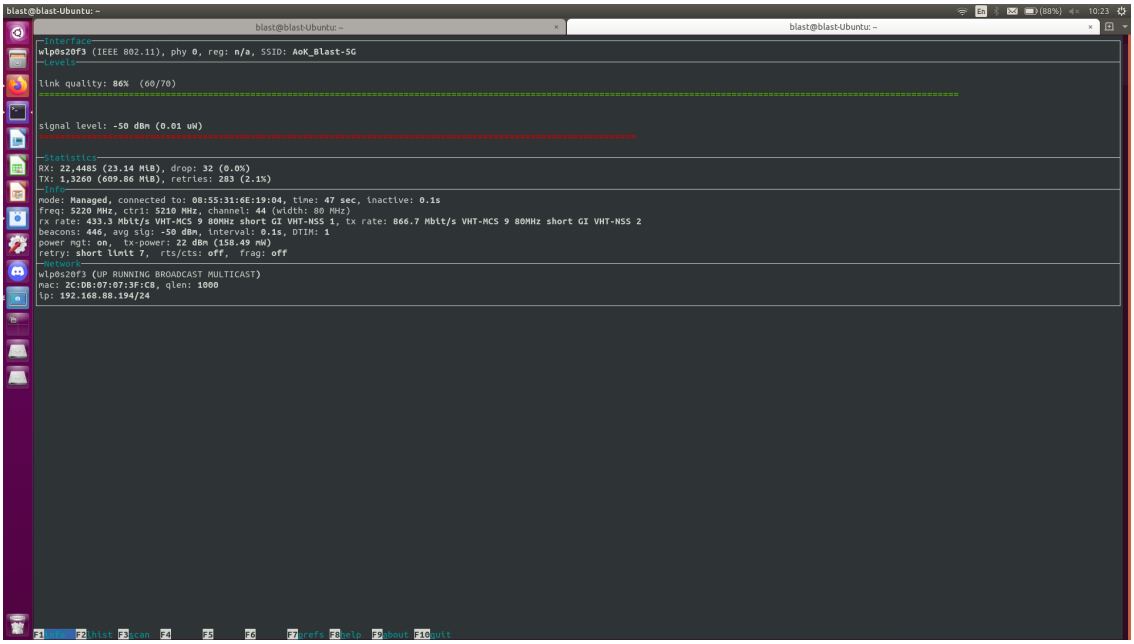
   2.4G:

   -35dBm



5G:

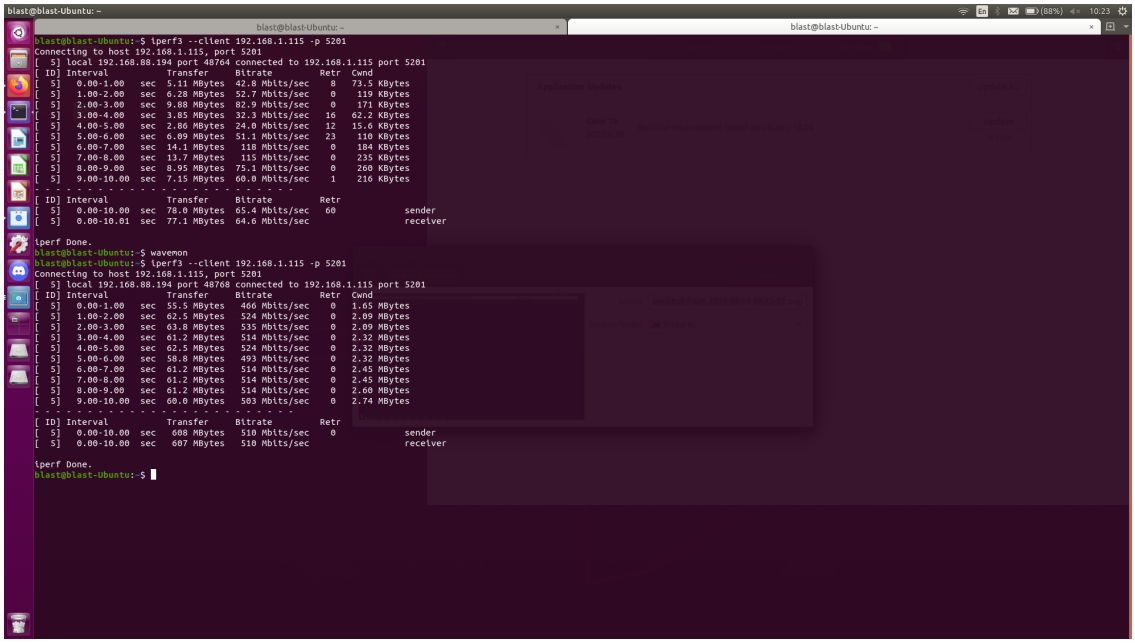
-50dBm



Iperf:

2.4G: $\frac{65.4+64.6}{2} = 65Mbit/s$

5G: $\frac{510+510}{2} = 510Mbit/s$



Analysis

Iperf Server在LAN用有線(1Gbps全雙工)接上，所以bottleneck只會在無線的訊號上。

在同環境下5G速度(功率)會大於2.4G，剛好符合Friis equation，波長小，功率大。

不同環境下的同頻率2.4G也會隨著距離跟障礙物變遠邊多，而功率變小，也是符合Friis equation(與距離的α次方成反比)。

不過我的5G隔牆反而比貼在旁邊測還要好，推測是因為牆壁厚度不夠而且距離過近導致穿透，且因為在其他無線接收端的反方向，不會有干擾。