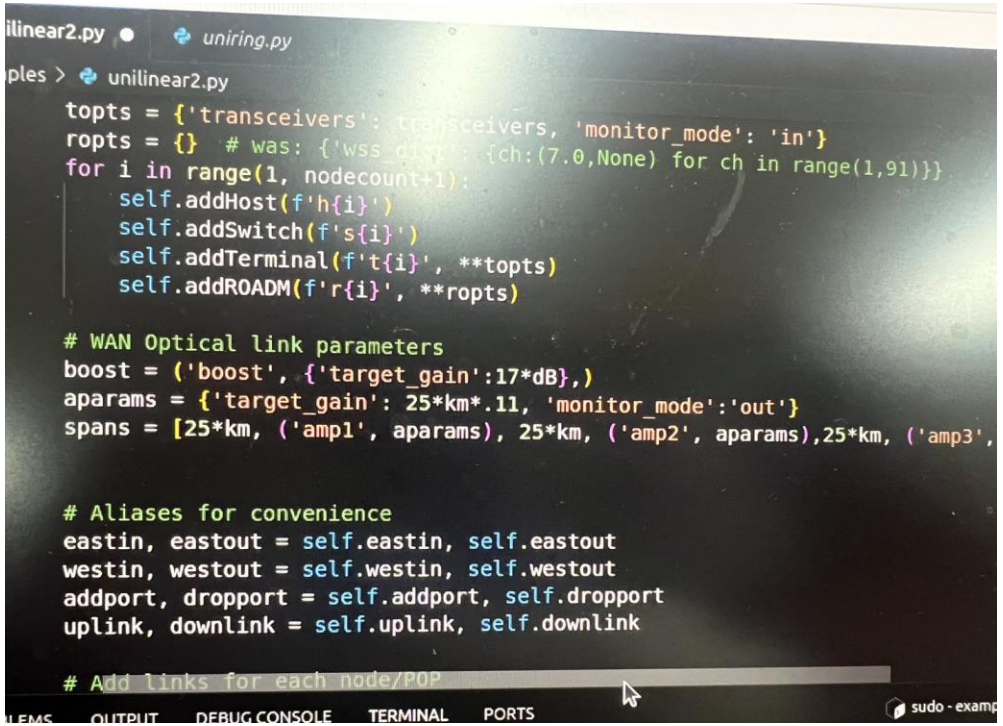
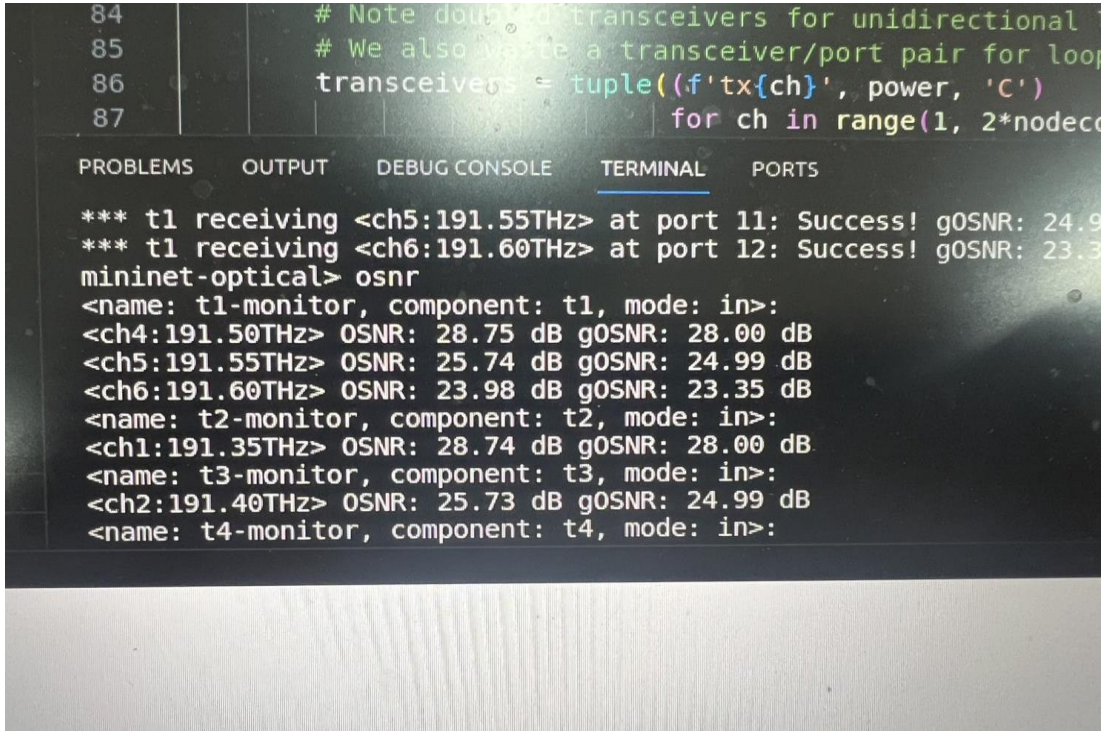
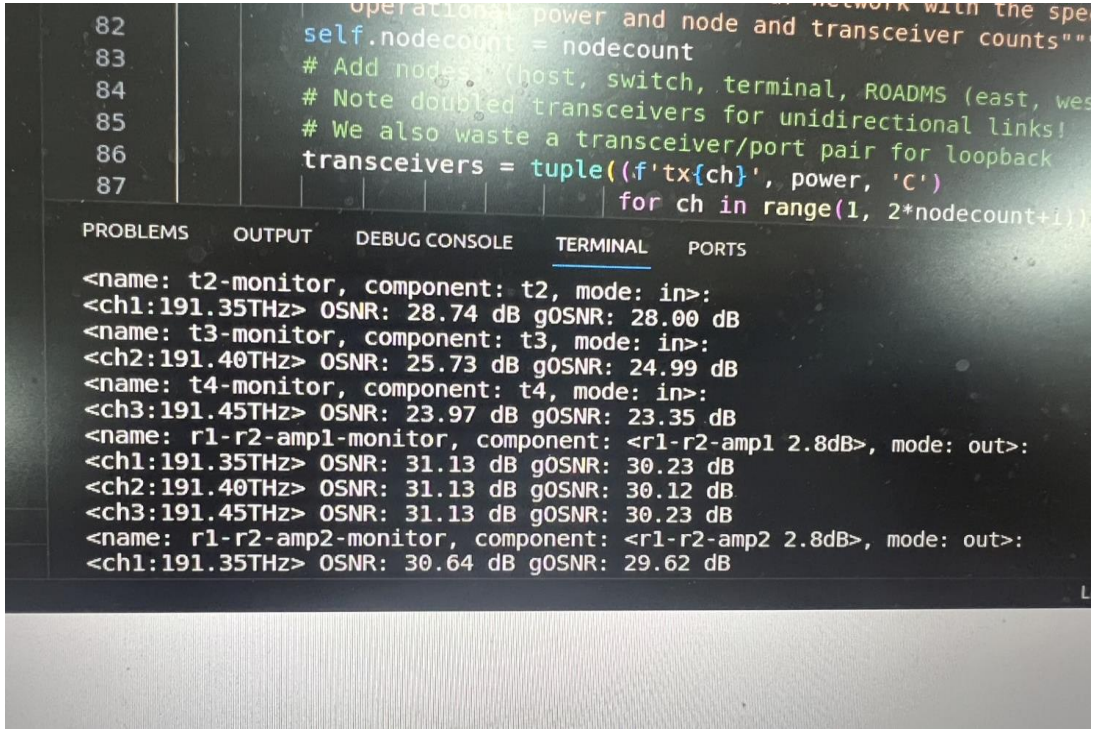
測量rodam之間Amplifier的變化(1)

- 每25公里設一個amplifier之OSNR變化,共4個



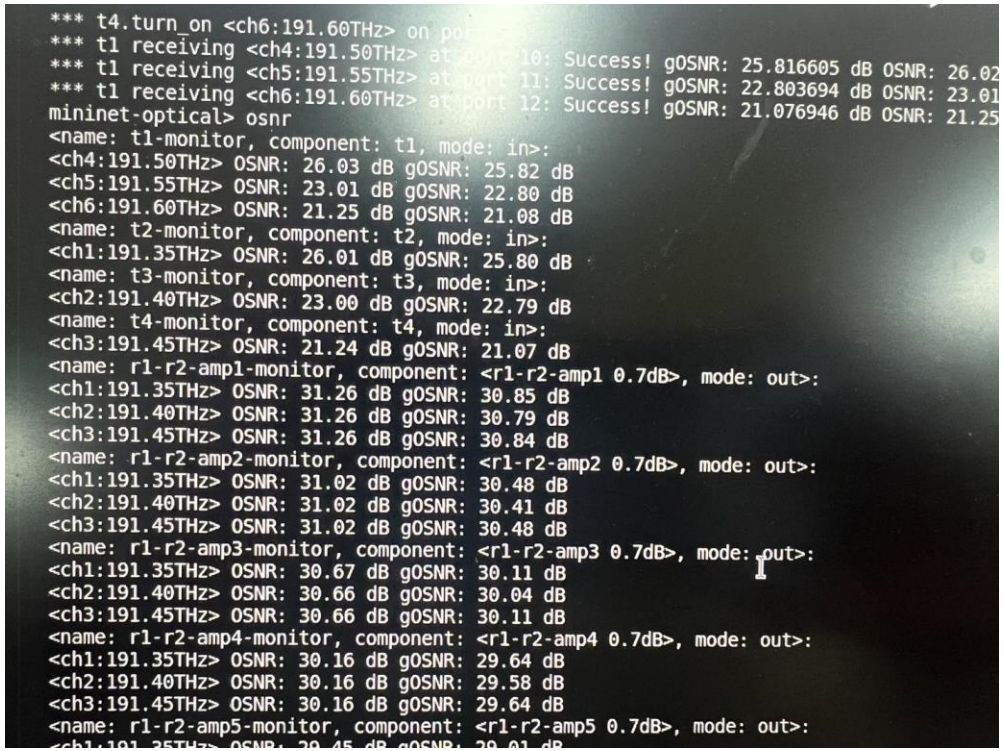
- <CH3:191.45THz>:表示為特定頻道在波長191.45terahertz
- OSNR: 31.13 dB：OSNR代表光信號與噪聲比。
  表示在給定頻寬內信號功率與噪聲功率的比率。
- GOSNR:經過某種泛用處理過後的OSNR

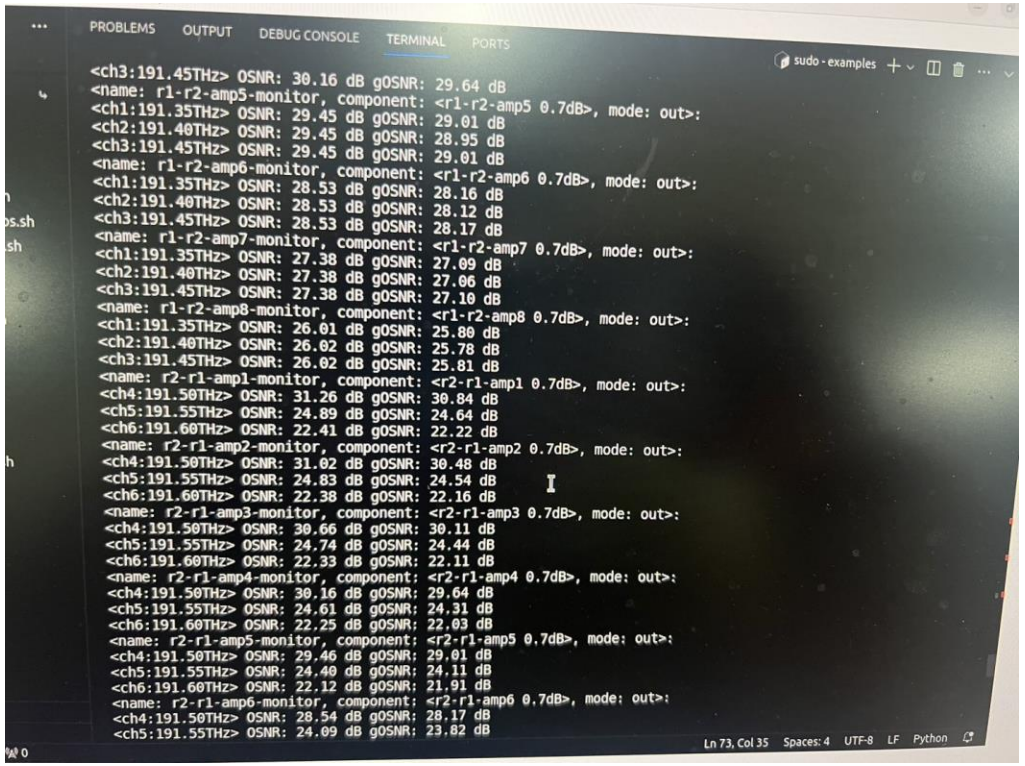


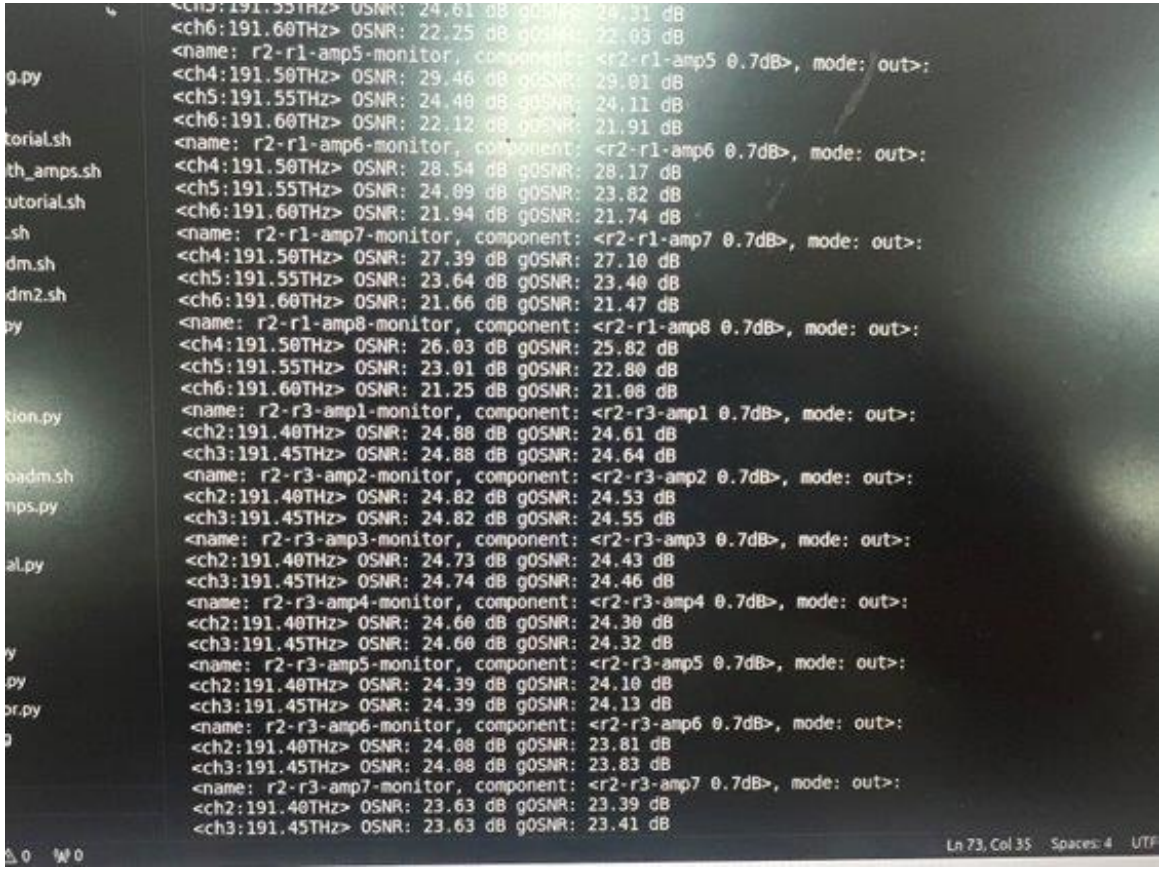


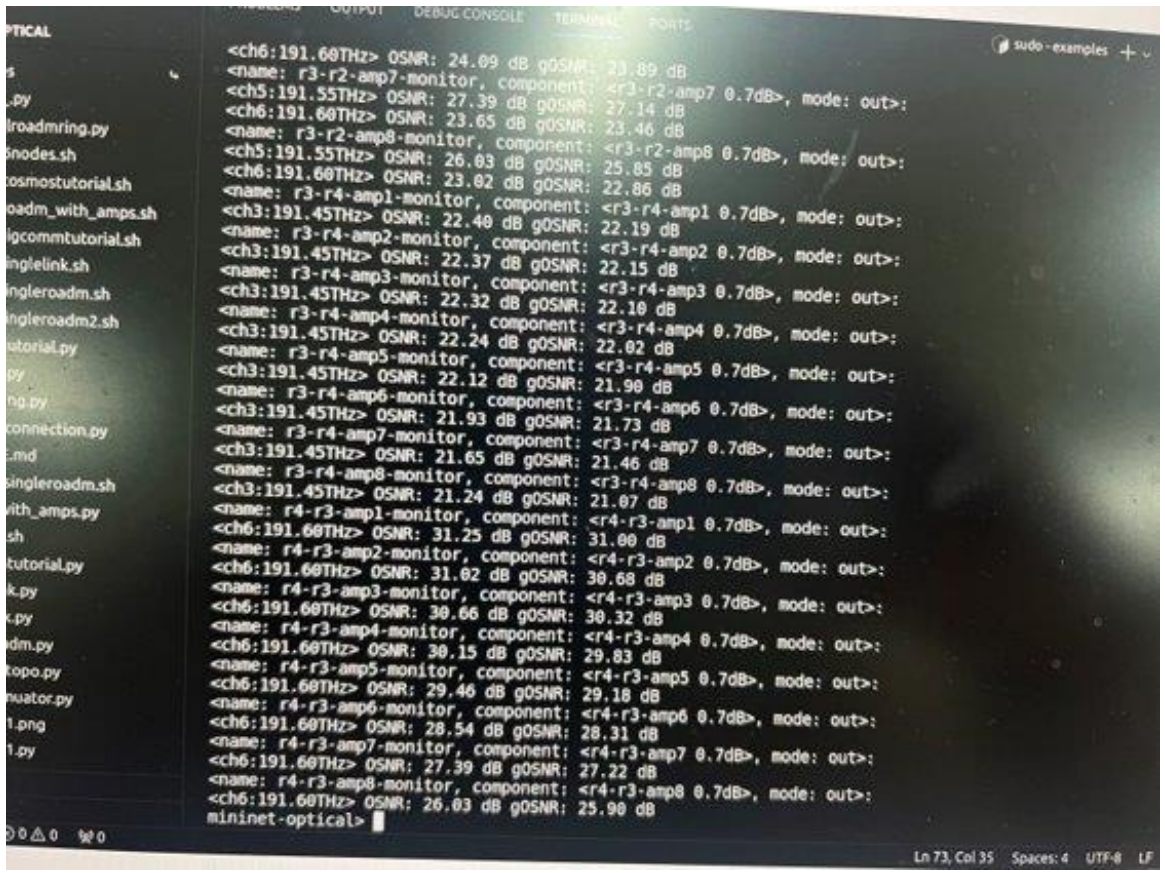
測量rodam之間Amplifier的變化(2)

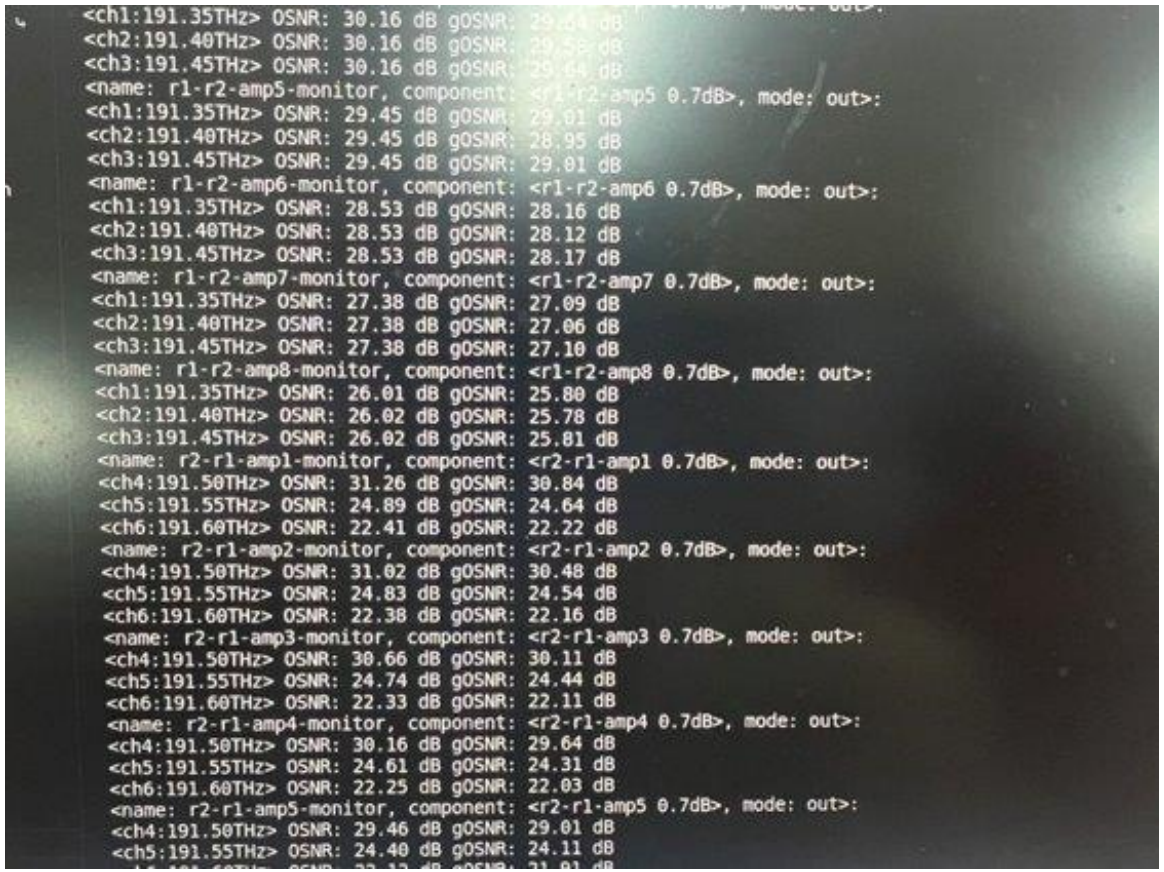
- 每12.5公里設一個amplifier之OSNR變化,共8個






<ch6:191.60THz> OSNR: 22.25 dB gOSNR: 22.03 dB
<name: r2-r1-amp5-monitor, component: <r2-r1-amp5 0.7dB>, mode: out>:
<ch4:191.50THz> OSNR: 29.46 dB gOSNR: 29.01 dB
<ch5:191.55THz> OSNR: 24.40 dB gOSNR: 24.11 dB
<ch6:191.60THz> OSNR: 22.12 dB gOSNR: 21.91 dB
<name: r2-r1-amp6-monitor, component: <r2-r1-amp6 0.7dB>, mode: out>:
<ch4:191.50THz> OSNR: 28.54 dB gOSNR: 28.17 dB
<ch5:191.55THz> OSNR: 24.09 dB gOSNR: 23.82 dB
<ch6:191.60THz> OSNR: 21.94 dB gOSNR: 21.74 dB
<name: r2-r1-amp7-monitor, component: <r2-r1-amp7 0.7dB>, mode: out>:
<ch4:191.50THz> OSNR: 27.39 dB gOSNR: 27.10 dB
<ch5:191.55THz> OSNR: 23.64 dB gOSNR: 23.40 dB
<ch6:191.60THz> OSNR: 21.66 dB gOSNR: 21.47 dB
<name: r2-r1-amp8-monitor, component: <r2-r1-amp8 0.7dB>, mode: out>:
<ch4:191.50THz> OSNR: 26.03 dB gOSNR: 25.82 dB
<ch5:191.55THz> OSNR: 23.01 dB gOSNR: 22.80 dB
<ch6:191.60THz> OSNR: 21.25 dB gOSNR: 21.08 dB
<name: r2-r3-amp1-monitor, component: <r2-r3-amp1 0.7dB>, mode: out>:
<ch2:191.40THz> OSNR: 24.88 dB gOSNR: 24.61 dB
<ch3:191.45THz> OSNR: 24.88 dB gOSNR: 24.64 dB
<name: r2-r3-amp2-monitor, component: <r2-r3-amp2 0.7dB>, mode: out>:
<ch2:191.40THz> OSNR: 24.82 dB gOSNR: 24.53 dB
<ch3:191.45THz> OSNR: 24.82 dB gOSNR: 24.55 dB
<name: r2-r3-amp3-monitor, component: <r2-r3-amp3 0.7dB>, mode: out>:
<ch2:191.40THz> OSNR: 24.73 dB gOSNR: 24.43 dB
<ch3:191.45THz> OSNR: 24.74 dB gOSNR: 24.46 dB
<name: r2-r3-amp4-monitor, component: <r2-r3-amp4 0.7dB>, mode: out>:
<ch2:191.40THz> OSNR: 24.60 dB gOSNR: 24.30 dB
<ch3:191.45THz> OSNR: 24.60 dB gOSNR: 24.32 dB
<name: r2-r3-amp5-monitor, component: <r2-r3-amp5 0.7dB>, mode: out>:
<ch2:191.40THz> OSNR: 24.39 dB gOSNR: 24.10 dB
<ch3:191.45THz> OSNR: 24.39 dB gOSNR: 24.13 dB
<name: r2-r3-amp6-monitor, component: <r2-r3-amp6 0.7dB>, mode: out>:
<ch2:191.40THz> OSNR: 24.08 dB gOSNR: 23.81 dB
<ch3:191.45THz> OSNR: 24.08 dB gOSNR: 23.83 dB
<name: r2-r3-amp7-monitor, component: <r2-r3-amp7 0.7dB>, mode: out>:
<ch2:191.40THz> OSNR: 23.63 dB gOSNR: 23.39 dB
<ch3:191.45THz> OSNR: 23.63 dB gOSNR: 23.41 dB
Ln 73, Col 35
Spaces: 4
UTF


sudo - examples
<ch6:191.60THz> OSNR: 24.09 dB gOSNR: 23.89 dB
<name: r3-r2-amp7-monitor, component: <r3-r2-amp7 0.7dB>, mode: out>:
<ch5:191.55THz> OSNR: 27.39 dB gOSNR: 27.14 dB
<ch6:191.60THz> OSNR: 23.65 dB gOSNR: 23.46 dB
<name: r3-r2-amp8-monitor, component: <r3-r2-amp8 0.7dB>, mode: out>:
<ch5:191.55THz> OSNR: 26.03 dB gOSNR: 25.85 dB
<ch6:191.60THz> OSNR: 23.02 dB gOSNR: 22.86 dB
<name: r3-r4-amp1-monitor, component: <r3-r4-amp1 0.7dB>, mode: out>:
<ch3:191.45THz> OSNR: 22.40 dB gOSNR: 22.19 dB
<name: r3-r4-amp2-monitor, component: <r3-r4-amp2 0.7dB>, mode: out>:
<ch3:191.45THz> OSNR: 22.37 dB gOSNR: 22.15 dB
<name: r3-r4-amp3-monitor, component: <r3-r4-amp3 0.7dB>, mode: out>:
<ch3:191.45THz> OSNR: 22.32 dB gOSNR: 22.10 dB
<name: r3-r4-amp4-monitor, component: <r3-r4-amp4 0.7dB>, mode: out>:
<ch3:191.45THz> OSNR: 22.24 dB gOSNR: 22.02 dB
<name: r3-r4-amp5-monitor, component: <r3-r4-amp5 0.7dB>, mode: out>:
<ch3:191.45THz> OSNR: 22.12 dB gOSNR: 21.90 dB
<name: r3-r4-amp6-monitor, component: <r3-r4-amp6 0.7dB>, mode: out>:
<ch3:191.45THz> OSNR: 21.93 dB gOSNR: 21.73 dB
<name: r3-r4-amp7-monitor, component: <r3-r4-amp7 0.7dB>, mode: out>:
<ch3:191.45THz> OSNR: 21.65 dB gOSNR: 21.46 dB
<name: r3-r4-amp8-monitor, component: <r3-r4-amp8 0.7dB>, mode: out>:
<ch3:191.45THz> OSNR: 21.24 dB gOSNR: 21.07 dB
<name: r4-r3-amp1-monitor, component: <r4-r3-amp1 0.7dB>, mode: out>:
<ch6:191.60THz> OSNR: 31.25 dB gOSNR: 31.00 dB
<name: r4-r3-amp2-monitor, component: <r4-r3-amp2 0.7dB>, mode: out>:
<ch6:191.60THz> OSNR: 31.02 dB gOSNR: 30.68 dB
<name: r4-r3-amp3-monitor, component: <r4-r3-amp3 0.7dB>, mode: out>:
<ch6:191.60THz> OSNR: 30.66 dB gOSNR: 30.32 dB
<name: r4-r3-amp4-monitor, component: <r4-r3-amp4 0.7dB>, mode: out>:
<ch6:191.60THz> OSNR: 30.15 dB gOSNR: 29.83 dB
<name: r4-r3-amp5-monitor, component: <r4-r3-amp5 0.7dB>, mode: out>:
<ch6:191.60THz> OSNR: 29.46 dB gOSNR: 29.18 dB
<name: r4-r3-amp6-monitor, component: <r4-r3-amp6 0.7dB>, mode: out>:
<ch6:191.60THz> OSNR: 28.54 dB gOSNR: 28.31 dB
<name: r4-r3-amp7-monitor, component: <r4-r3-amp7 0.7dB>, mode: out>:
<ch6:191.60THz> OSNR: 27.39 dB gOSNR: 27.22 dB
<name: r4-r3-amp8-monitor, component: <r4-r3-amp8 0.7dB>, mode: out>:
<ch6:191.60THz> OSNR: 26.03 dB gOSNR: 25.90 dB
mininet-optical>
Ln 73, Col 35
Spaces: 4
UTF-8
LF


<ch1:191.35THz> OSNR: 30.16 dB gOSNR:
<ch2:191.40THz> OSNR: 30.16 dB gOSNR:
<ch3:191.45THz> OSNR: 30.16 dB gOSNR:
<name: r1-r2-amp5-monitor, component:
<ch1:191.35THz> OSNR: 29.45 dB gOSNR: 29.01 dB
<ch2:191.40THz> OSNR: 29.45 dB gOSNR: 28.95 dB
<ch3:191.45THz> OSNR: 29.45 dB gOSNR: 29.01 dB
<name: r1-r2-amp6-monitor, component: <r1-r2-amp6 0.7dB>, mode: out>:
<ch1:191.35THz> OSNR: 28.53 dB gOSNR: 28.16 dB
<ch2:191.40THz> OSNR: 28.53 dB gOSNR: 28.12 dB
<ch3:191.45THz> OSNR: 28.53 dB gOSNR: 28.17 dB
<name: r1-r2-amp7-monitor, component: <r1-r2-amp7 0.7dB>, mode: out>:
<ch1:191.35THz> OSNR: 27.38 dB gOSNR: 27.09 dB
<ch2:191.40THz> OSNR: 27.38 dB gOSNR: 27.06 dB
<ch3:191.45THz> OSNR: 27.38 dB gOSNR: 27.10 dB
<name: r1-r2-amp8-monitor, component: <r1-r2-amp8 0.7dB>, mode: out>:
<ch1:191.35THz> OSNR: 26.01 dB gOSNR: 25.80 dB
<ch2:191.40THz> OSNR: 26.02 dB gOSNR: 25.78 dB
<ch3:191.45THz> OSNR: 26.02 dB gOSNR: 25.81 dB
<name: r2-r1-amp1-monitor, component: <r2-r1-amp1 0.7dB>, mode: out>:
<ch4:191.50THz> OSNR: 31.26 dB gOSNR: 30.84 dB
<ch5:191.55THz> OSNR: 24.89 dB gOSNR: 24.64 dB
<ch6:191.60THz> OSNR: 22.41 dB gOSNR: 22.22 dB
<name: r2-r1-amp2-monitor, component: <r2-r1-amp2 0.7dB>, mode: out>:
<ch4:191.50THz> OSNR: 31.02 dB gOSNR: 30.48 dB
<ch5:191.55THz> OSNR: 24.83 dB gOSNR: 24.54 dB
<ch6:191.60THz> OSNR: 22.38 dB gOSNR: 22.16 dB
<name: r2-r1-amp3-monitor, component: <r2-r1-amp3 0.7dB>, mode: out>:
<ch4:191.50THz> OSNR: 30.66 dB gOSNR: 30.11 dB
<ch5:191.55THz> OSNR: 24.74 dB gOSNR: 24.44 dB
<ch6:191.60THz> OSNR: 22.33 dB gOSNR: 22.11 dB
<name: r2-r1-amp4-monitor, component: <r2-r1-amp4 0.7dB>, mode: out>:
<ch4:191.50THz> OSNR: 30.16 dB gOSNR: 29.64 dB
<ch5:191.55THz> OSNR: 24.61 dB gOSNR: 24.31 dB
<ch6:191.60THz> OSNR: 22.25 dB gOSNR: 22.03 dB
<name: r2-r1-amp5-monitor, component: <r2-r1-amp5 0.7dB>, mode: out>:
<ch4:191.50THz> OSNR: 29.46 dB gOSNR: 29.01 dB
<ch5:191.55THz> OSNR: 24.40 dB gOSNR: 24.11 dB

Data rate與OSNR之相關性

- Data rate=頻寬*log(1+OSNR)
  #log以2為底
  #之前10個host都設頻寬為128GPbs