

$$1.544 \times 10^6 \text{ bps} = 1 \times 10^6 \text{ Hz} \times \text{Log}[2, 1 + \text{SNR}]$$

$$\frac{1.544 \times 10^6}{1 \times 10^6} = \text{Log}[2, 1 + \text{SNR}]$$

$$1.544 = \text{Log}[2, 1 + \text{SNR}]$$

$$2^{1.544} = 1 + \text{SNR}$$

$$\text{SNR} = 2^{1.544} - 1$$