1. PPM

Maximum data rate for audio signals = 2 \* 16 Hz (Nyquist rate) \* 4 bits per sample = 128 Kb/s

Bandwidth = 30 Gb = 30,000 Mb = 30,000,000 Kb

30,000,000 Kb / 128 Kb/s = 234,375 simultaneous audio signals

1. PCM

Maximum data rate for audio signals = 2 \* 16 Hz (Nyquist rate) \* 16 bits per sample = 512 Kb/s

Bandwidth = 30 Gb = 30,000 Mb = 30,000,000 Kb

30,000,000 Kb / 512 Kb/s = 58593.75 = 58,594 simultaneous audio signals