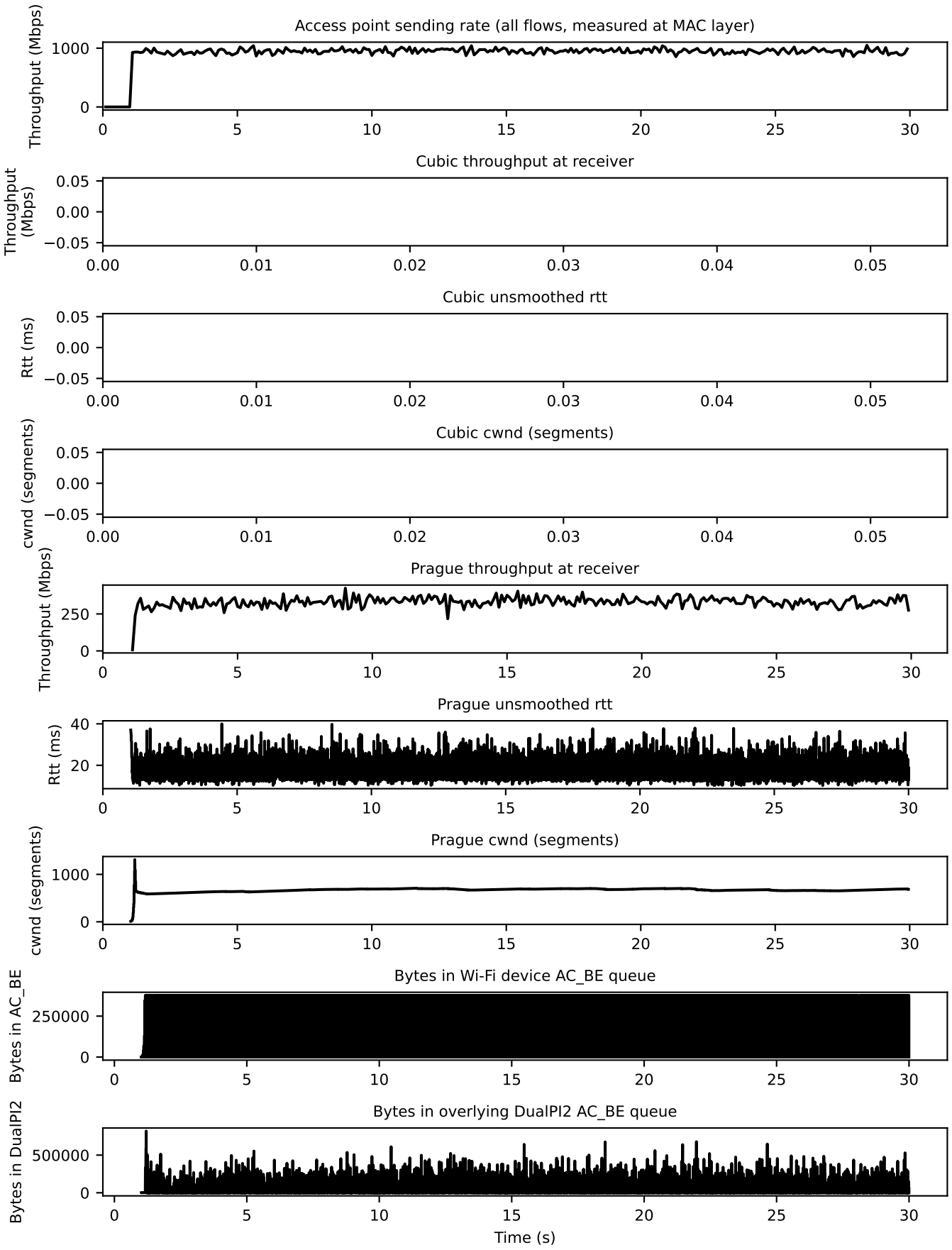Simulation ED3-MS1-AP1-LS3-TC2-TS2