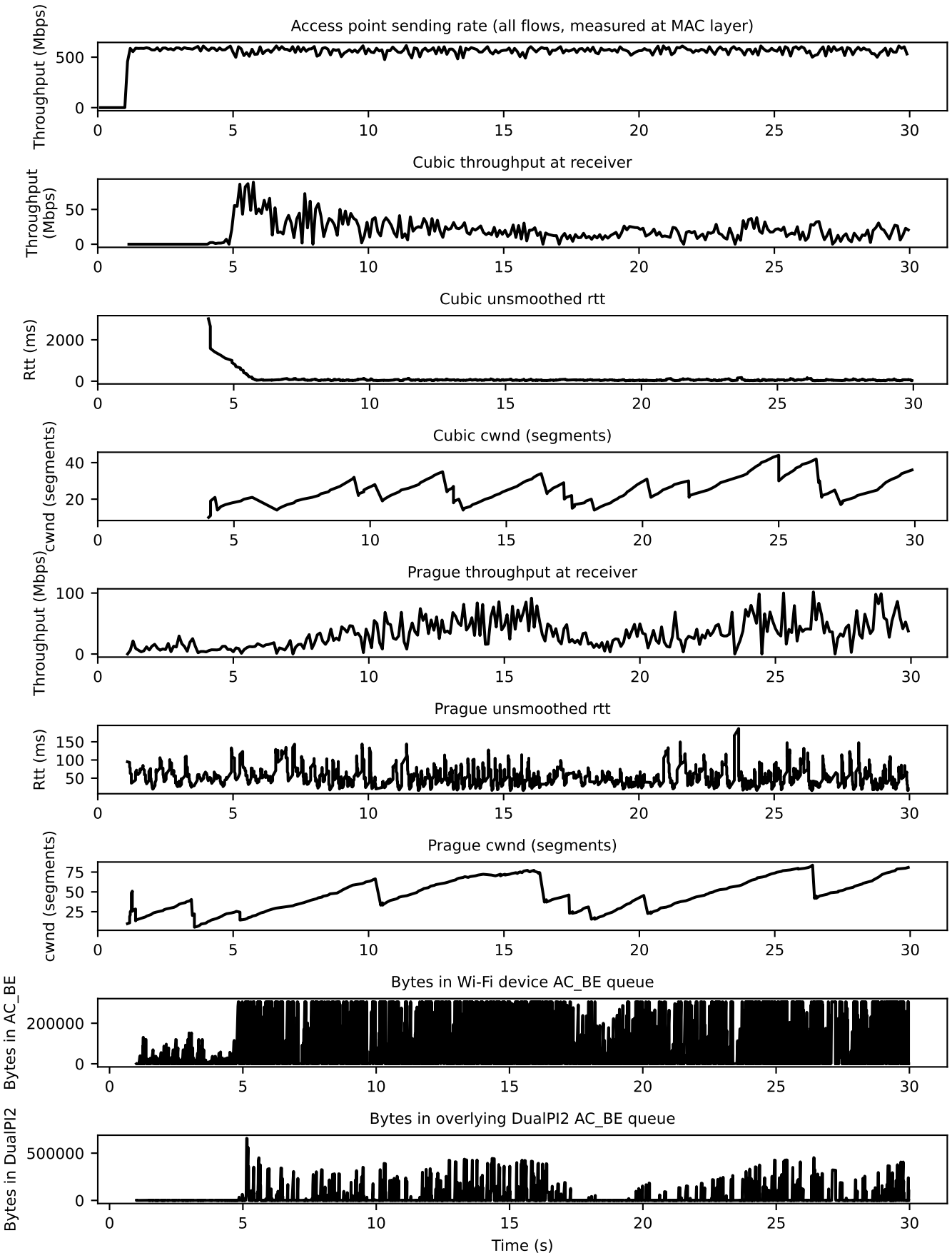Simulation ED1-MS2-AP1-LS2-TC5-TS2