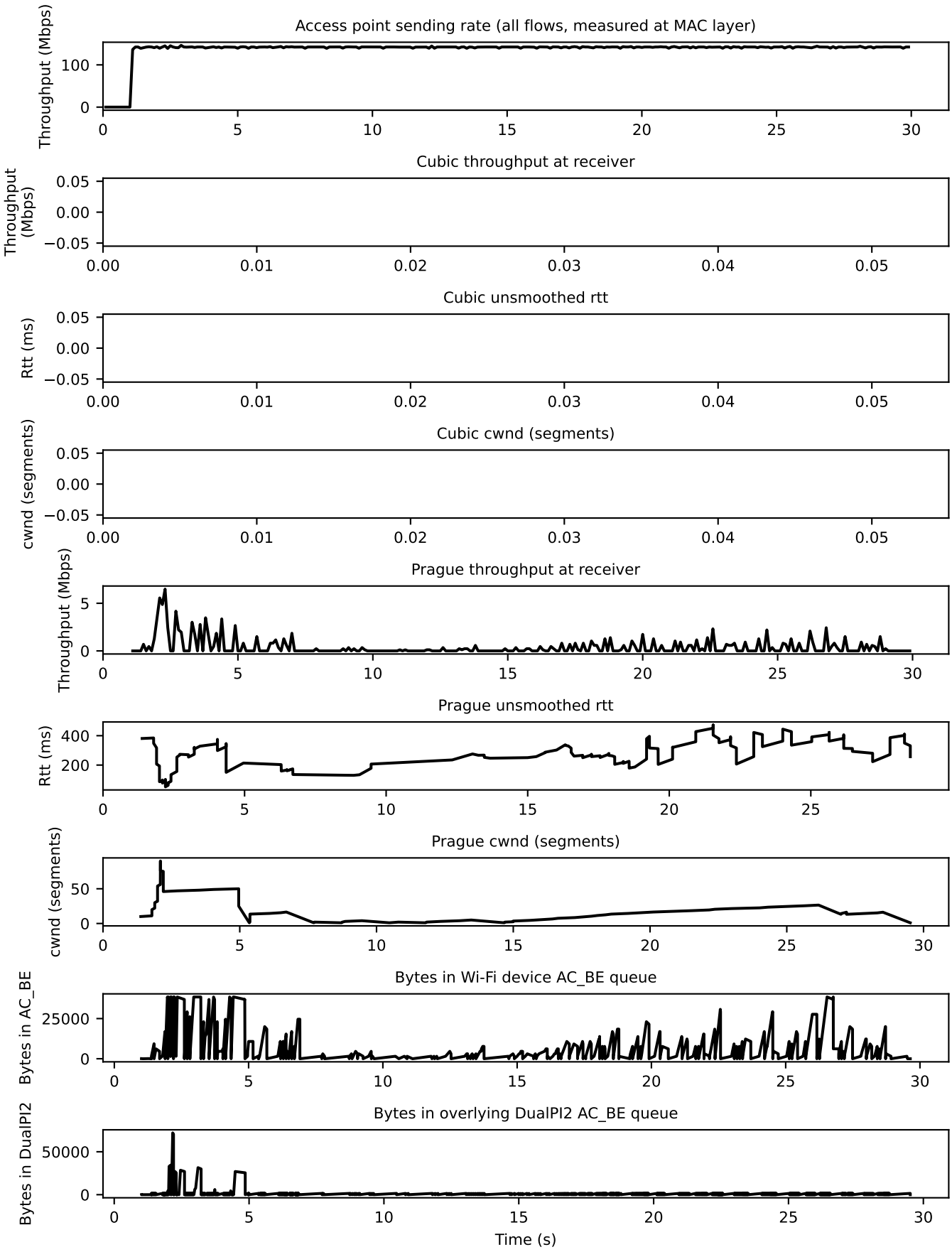Simulation ED2-MS1-AP1-LS1-TC2-TS1