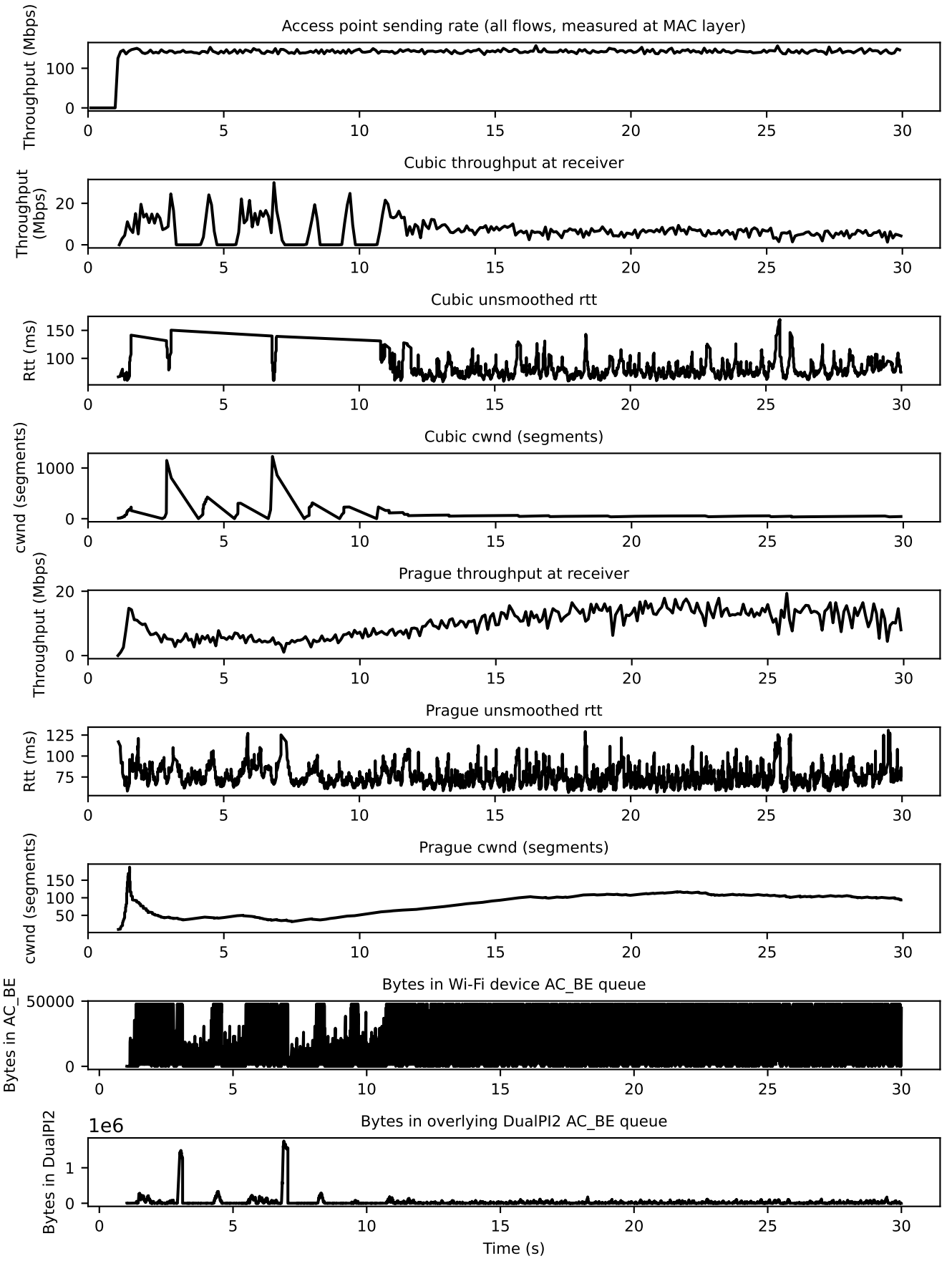Simulation ED3-MS2-AP1-LS1-TC3-TS3